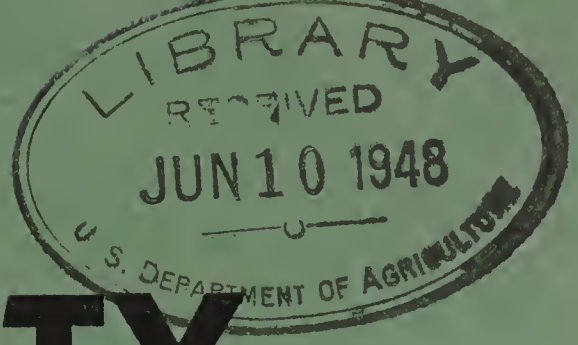


Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.



SECURITY AT THE GRASS ROOTS

*A Report of - -
Cooperative Ex-
tension Work in
Agriculture and
Home Economics
1940-41*

**EXTENSION SERVICE
WASHINGTON, D. C.
UNITED STATES DEPARTMENT
OF AGRICULTURE**

SECURITY AT THE GRASS ROOTS

**A REPORT OF COOPERATIVE EXTENSION
WORK IN AGRICULTURE AND HOME
ECONOMICS, 1940-41**

PREPARED BY THE EXTENSION SERVICE

M. L. WILSON, Director

REUBEN BRIGHAM, Assistant Director

UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON : 1941

CONTENTS

	Page		Page
Introduction.....	1	Rural family well-being promoted.....	28
Emphasis on food for defense.....	1	Housing the self-help way.....	29
Meeting defense repercussions.....	2	Aid given in home improvement.....	30
Down-to-earth defense.....	3	Farmers helped to get electricity.....	32
Farmers organized for planning.....	4	Help given in emergencies.....	33
Toward better farming and farm living....	5	Emphasis on child development increased..	33
Security through better nutrition.....	7	Mattresses for nearly 3 million homes....	34
Nutrition programs intensified.....	7	Clothing program stresses economy.....	34
Striving to change attitudes.....	8	Rural women learn crafts.....	35
Better living in 2 million homes.....	8	Home grounds improved.....	35
Local examples show progress.....	9	Healthy rural families a major goal.....	36
Diets for low incomes planned.....	11	Toward greater economic security.....	37
Freezer lockers solve storage problem....	12	Agricultural planning shows results.....	37
Meeting problems in Territories.....	12	Farmers informed of outlook.....	39
Meeting food-for-defense needs.....	13	Forum groups discuss vital problems.....	40
Spotlight on dairy industry.....	13	Farmers receive marketing aid.....	41
Poultry and eggs put on "must" list.....	15	Tenant and sharecropper relations im-	
Long-time gains made for livestock.....	18	prove.....	43
Progress in tuberculin testing.....	18	Unit demonstrations increase.....	44
More hogs for defense.....	19	Low-income families aided.....	45
Emphasis on soil conservation.....	21	Economic security through better home.	
Farmers improve seed cooperatively.....	23	management.....	46
Improved pastures show results.....	24	Farm families helped with credit problems..	47
How legumes spread.....	24	Farm forestry adds to family security....	48
Dry-land ranges improved.....	25	Youth replies, "I can!".....	51
Hybrid corn takes the Corn Belt.....	25	Older youth take part in affairs.....	55
Weed-control work active.....	26	Security through understanding.....	55
Insect pests and plant diseases fought....	26	Funds and workers.....	56

Introduction

The food needed to make America stronger, and the security of the people on the land are still very much a matter of showing farm people how to conquer the enemies of things that grow, adopt the most scientific farming and homemaking practices, and make their plans with an understanding of the issues facing democracy, for the needed adjustments in farming and farm living.

To that end the Extension Service during the year has greatly intensified and enlarged its educational efforts that relate to national defense and security.

Through meetings of farm people, personal visits, demonstrations, discussion groups, planning committees, local news stories, regular radio programs, bulletins, local exhibits, tours, circular letters, and other educational devices, extension agents in practically every county have focused major attention on food-for-defense needs. They take into account the outlook, proper use of land, home food production, better food habits, necessary production adjustment, and the issues facing democracy.

In doing this, the agents have relied heavily on the 27 years of Extension Service's previous experience, which included helping farm people meet the food needs of the last war and the grave problems of the depression and adjustment periods that followed; as well as drought, crop pest infestations, and other emergencies.

The greatest strength of the Extension Service is in its 702,000 voluntary local leaders who, over the years, have become trained and experienced in community leadership of extension projects.

Extension workers have gone out on the farms and into the homes to meet the people and work with them; of taking to the land not only the improvements and discoveries worked out in the laboratories and on the testing grounds, but the details of farm and home programs evolved by leaders appointed by the rural people themselves.

In this new emergency, when the national spotlight is again focused on food supplies, and because county agents are so close to farmers, know their problems, their philosophy of life, and are looked upon for advice and guidance, these extension workers, together with the specialists, naturally assume the responsibility of keeping the rural people informed of developments and how to make needed adjustments.

Emphasis on Food for Defense

Extension home-food-production committees were established early in 1940, and in the fall, in practically every State, an expanded coordinated food-production and preservation program was launched, largely by placing major emphasis on already established programs.

Within 10 days after the Department placed major emphasis on food for defense, Federal extension workers had visited every State,

and local mass educational programs for encouraging and helping farm people produce the needed pork, dairy, and poultry products, tomatoes, and other foods were under way.

In most communities extension agents assumed the lead in conferences between farmers and manufacturers, distributors, cooperative association leaders, and others to assure marketing, distribution, and processing facilities for increased production in each locality.

Extension agents carried much of this and related food-for-defense information to farm people through cooperative marketing and purchasing associations organized and definitely assisted by Extension agents during the year. These associations had nearly a million farmer members.

Through 1,140,723 members of organized home demonstration clubs, information on food for defense and increased home food production needs reached leading farm women in every farm community.

Home gardening, health and nutrition, and food production projects received major attention of the 1,420,297 farm boys and girls in extension-organized 4-H clubs.

Reports from the States show that a wealth of locally planned subject matter told farmers how they could get more milk from their cows, get their hens to give more eggs, and otherwise increase production on a sound basis, has been distributed. For example, in North Carolina, 350,000 copies of several bulletins and leaflets on home food production plans were printed and a set sent to practically every farm family in the State. Extension agents and local leaders followed through by obtaining pledges from farm families that they would do everything possible to meet home food needs and further increase food production.

Because of local conditions, food-for-defense efforts naturally vary in different areas. While Wisconsin extension workers were putting major emphasis on increasing milk production and shifting milk from other uses into needed cheese, Nebraska and the Northeast were adjusting their problems to meet drought conditions, Alabama agents were establishing a garden demonstration in every community, Kansas workers were urging increased production of eggs for drying in available plants, and the Corn Belt extension workers were devoting major efforts to encourage and help farmers in that area to produce a large share of the foods needed for export to England and other countries.

Meeting Defense Repercussions

Repercussions from the launching of the National Defense Program brought to many rural families other problems that challenged their ingenuity and required aid from the Extension Service to solve. In addition to those arising because of inadequate housing, shifts in farm population, and disruption of family life, there came a changed emphasis in training youth, changes in consumption of commodities and increased emphasis on certain commodities, improved distribution and marketing methods, farm-labor shortage, and price increases. Also, many of the families that rushed to points where military camps or industrial plants were being established, lacked information and skill to plan and prepare an adequate diet for family members. Army camps, airfields, training and

testing grounds, and industrial plants were mushrooming overnight in many areas. Families occupying the land selected for sites of defense units had to be fed, housed, and given opportunities to make necessary adjustments into a more complicated and often more perplexing way of living. Extension workers helped make preliminary surveys to ascertain the best procedure to follow in moving families to new farming areas; how they could be housed and fed, how many would be able to work in defense industries; and how defense workers could be supplied with food and given living accommodations.

In connection with the establishing of a new powder plant at Radford, Va., the Virginia Extension Service made a comprehensive study of available labor and farm housing facilities through the cooperation of the land-use planning committees, county home-making boards, and trained men and women leaders, in order that new housing facilities contemplated by the Government might meet the permanent needs of the farm and tenant families after the emergency period. Near Savannah, Ga., where a 200,000-acre farming area was purchased for a bombing field, many farm families were forced to move. Few were given work in the new development. Extension workers gave advice, secured credit, helped relocate the people involved, and assisted many in coping with new soil- and farm-management problems. They also assisted farmers in disposing of their crops, livestock, and equipment, and procured places in industry for those who did not choose to go on in farming.

Practically all problems of farm-family living in the newly concentrated areas were intensified for the families that were relocated, for the new workers who came for employment, for the farmers in surrounding areas who had to change their farming economy to meet the demand for more milk, vegetables, eggs, meat, and other foods; and for the communities generally which faced higher rents, increased costs of living, and an increased drain on welfare, social, and recreational facilities.

With so much malnutrition, especially among low-income groups in cities and on farms, and with high national morale and strong bodies so necessary to our defense, the solving of these problems is important to the Nation, in addition to the development of military strength. To meet the situation arising adjacent to the defense developments, extension workers went to the newly created quarters and mushroom towns to help inhabitants provide adequate diets by buying wisely, canning, storing, and preserving; helping them to plant family gardens, prepare new foods peculiar to the area, and make their homes and surroundings more comfortable, convenient, and attractive.

It was a complex set of many problems, some new, some old, that faced the farm people. Each problem required a different approach and a different technique of solving, but each technique included educational phases that were designed to give rural people the best information obtainable on the subject involved.

Down-to-Earth Defense

A strong nation with high morale must be well fed. Best estimates indicate that fully one-fourth of our population subsists on inadequate diets, especially in regard to vitamins and mineral requirements. Many persons do not have the money to buy adequate

food; many could buy far more adequate diets with money they do have; and many families do not know or fully appreciate the necessity of good diets, their body requirements, and the nutritional values of different foods. This is a long-time educational job that is a challenge to all of us and the entire Nation. Defense activities intensify it.

Because a democracy must act in keeping with what its citizens think, it is highly important not only that its citizens be given quickly all the facts regarding the world situation and the forces at work but also that a concerted attempt be made along with the giving of facts, to develop a national spiritual unity based upon a realization of what democracy has already meant to the people of this Nation and what it can mean to them in the future. This was done on a large scale during the past year through discussion groups. Plans were also laid and set into operation to instill confidence among the rural folk of the Nation in our national leaders. It was pointed out that national defense was comprehensive and enlisted the maximum efforts of every citizen. Definite effort has been made to impress farm people and others with the great significance of national unity in time of crisis. They are brought to realize that defense means more than munitions and guns—products of the soil are also highly essential.

Farmers Organized for Planning

Of especial importance in this regard were the agricultural planning committees which served as a direct link between the discussion, planning, and action of farmers themselves, and that of responsible administrators.

Agricultural planning is a means by which the county planning committees and the representative agencies of the State and Federal Governments, with important economic and technical facts before them, can agree on a coordinated farm policy for the country. They can arrive at decisions which lead to a sensible adaptation of public-action programs to varying local conditions. Thus the thinking of farm people becomes a regular part of the functioning of action programs, helping to bring about adjustments which will contribute to the immediate and long-time interests of rural people. Discussion of problems pertinent to the farm and home were not reserved entirely for the agricultural planning meetings. They were carried on at meetings of home demonstration clubs, 4-H Clubs, rural-youth groups, farmers' organizations, and at almost every occasion on which farm people got together.

Farmers were able to respond to the needs of the National Defense Program because they kept abreast of developments at home and abroad. Through county and State agricultural planning surveys they knew the resources of their respective counties, knew their productive potentialities, they had facts about community failings and shortcomings, they knew in what direction increased demands would lead. Farmers have assisted in taking inventories of crops, livestock, poultry, and have calculated increases that can be made and designated certain commodities that might be curtailed to make way for more important ones. Farmers know of the natural resources and their present status. They have studied land-classification maps and soil surveys, and they knew, because of records kept, what their yields were.

At the end of the year county and community agricultural planning committees were at work in 1,600 counties and more than 141,000 farm men and women were at work on these committees. Extension agents were largely responsible for organizing these committees and getting the agricultural planning program functioning in their counties. These committees of leading farm people, with help from Government agencies, are developing coordinated, locally adapted farm programs as rapidly as the intensive phases of planning get well under way in the various counties.

Toward Better Farming and Farm Living

One part the extension agricultural engineering project is playing in the Defense Program is training farmers to produce food, feed, clothing, and materials efficiently with a minimum of farm labor and machinery. Training farmers to repair, adjust, and operate farm power and machinery units releases a maximum of men on the farm and men in the defense industries to work on war machines and materials. Thirty such training schools were held in 1940 in Missouri alone.

Extension agents and specialists encouraged farmers and 4-H Club members to increase their number of hogs, poultry, dairy cows; grow more vegetables and other garden stuffs; to preserve, can, cure, and store more farm-produced vegetables, fruits, and meats. They gave more demonstrations on how to get the most from the farm in following a live-at-home program. Nearly half a million families were assisted in producing a larger part of their home needs. They also helped approximately a million low-income rural families obtain surplus cotton and make it into mattresses for home use. Mattress-making centers were established in 12,000 communities, and more than 56,000 volunteer leaders assisted in the project.

Extension workers helped breed associations in procuring better sires and dams and in culling flocks and herds; they assisted marketing organizations and individuals in solving their problems. They increased their consumer education service, emphasizing the need for health protection measures, and stimulating the use of more desirable foods, especially those supplying vitamins B and C. In cooperation with the Surplus Marketing Administration, they intensified the school lunch program. They also assisted with the food-stamp plan. Surveys and inventories were made throughout the country to determine the present status of farm production and the potential productive strength of farms with the view of changing certain farming practices to insure a better balanced food supply for the family, community, county, State, Nation, and the importing countries.

Nutritional science has seen so many new developments recently that our entire outlook toward nutrition and food habits has changed. Extension, as an over-all educational agency in agriculture, has contributed much of the spadework in laying the basis for a truly intelligent attitude toward modern dietary needs. The need is for general education on nutrition, and for awakening the national consciousness to the fact that we cannot afford to have some 40 million people live on diets not adequate to meet the dietary standards which science tells us are essential.

Extension agents helped thousands of owners of family-sized farms and tenant families in the low-income groups; helped them increase their income through advice and simple demonstrations of the latest improved practices; helped them produce more food to meet home needs; helped them develop supplemental cash income by selling such things as vegetables and home-made articles; helped them improve their homes, diets, health, and living standards at low cost; helped them to make wiser purchases with the little available money; led them to cooperate with their neighbors; helped them to help themselves in that spirit of self-reliance and morale which has made America great.

Studies indicate that at least 2½ million of the 5½ million farm families, Negro and white, that were helped by extension agents during the year, did not own their farms. Though the white extension agents worked with Negro farmers as well as with white, about 500 Negro extension agents worked specifically with Negro families during the year.

The Nebraska survey shows that extension agents reached 79 percent of all farm owners and 74 percent of all tenants in the State. These results are similar to studies made in other States.

A similar survey in Arkansas showed that 47 percent of the membership of extension home demonstration and 4-H Clubs came from the homes of tenant families.

Reports from extension agents show that extension work during the last year resulted in changes in practices on 3,802,114 farms. Home-economics phases influenced the adoption of improved practices in 1,698,577 farm homes and in 567,456 other homes. The number of farm families definitely influenced by some phase of the 1940 extension program equals 71.3 percent of all farm families listed in the 1930 census.

One of the most significant accomplishments of the Extension Service during the year was the work with 4-H Club members. More than 8½ million farm boys and girls have been in 4-H Club work since the movement began, and now nearly three-fifths of all farm-reared youth are 4-H members for an average of 2½ years. These young folk are trained in farming, homemaking, and useful citizenship.

Extension work with adults claimed 71.5 percent of the time of all county workers, the remaining 28.5 percent being devoted to 4-H Club and older youth extension activities. Considering all county workers, 62 percent of the year's time was spent in the field and 38 percent in the office.

During the year, county extension agents made 3,250,705 calls at 1,706,185 different farms and homes. Personal calls at the county extension offices to confer with agents were approximately six times the number of calls made by agents to farm homes. Extension meetings called by agents and leaders were attended by a total of 58,671,861 persons.

The following portion of the report deals more in detail with what has been accomplished by the Extension Service during 1940 toward better farm living and greater national security.

Security Through Better Nutrition

Assistance given to rural families and families of workers engaged in defense activities was only a small part of the vast extension nutrition program under way during the year in various States and Territories. Although for many years extension workers have been carrying on an action program among rural people to reduce the number of families with unsatisfactory diets, still, about 2,500,000 or 40 percent of the farm families of this country are subsisting on diets far below the standards set by dietitians for good health and well-being.

To build better Americans, food must be procured, prepared, and served in appetizing meals in the right variety and amounts. The salaried family goes to the store and spends its food allowance, or asks the milkman and grocer to call. From 35 to 60 percent of its entire income often goes to cover food expenses.

The farm family's problem is much more complex. At least a large part of the milk, eggs, meat, vegetables, and fruits consumed by the family must actually be raised. Perishable foods not consumed immediately must be processed and stored. This takes land, labor, capital, a wide variety of skills, equipment, and even special buildings. It takes planning and day-by-day attention and execution, battles with drought, frost, and pests, and a vision of the goal toward which planning and labor tend.

Nutrition Programs Intensified

When "Food for Defense" became one of the national slogans, extension machinery already in operation was stepped up, and nutrition programs were intensified. Most of the States had an extension committee devoting State-wide attention to the family food supply. Such an organization emphasizes the need for the cooperative efforts of leaders in fields related to nutrition.

The Extension Service played an important part in the National Nutrition Conference called by the President during the year. As Chairman of the Nutrition Advisory Committee to the Coordinator of Health, Welfare and Related Activities, the Director of Extension Work of the Federal Department of Agriculture, assisted by nutrition and home economics specialists on the Extension staff, arranged for many of the details of the conference and brought into proper perspective the importance of the food-for-defense program, the food-stamp plan, nutrition planning as a part of land use planning, and the various other undertakings of the Department of Agriculture dealing with nutrition.

The land-grant colleges and the State extension services are represented on all the State nutrition committees, and extension workers in every State are studying national nutrition needs brought out at the National conference and further intensifying their programs to meet those needs. The State extension services continue to play a leading part in the nutritional campaign among rural people. In addition, the Public Health Service, the vocational education people, the American Red Cross, medical associations, leading industrial groups such as the millers' and bakers' associations, and many others

under the national nutrition program are engaged in stimulating better diet and in placing the spotlight on improving the diet of all groups of Americans so that we will overcome the fact that one-third of our people are suffering from hidden hunger.

In their surveys to determine causes for inadequate supplies of food on many farms, extension workers have encountered strikingly similar reasons in all regions of the Nation. The major ones are: Adverse climatic conditions, such as drought and lack of irrigation facilities; uncertain tenure on the land, unpleasant landlord-tenant relations, too many insect pests, poor soil, high cost of seed, lack of pressure cookers, and lack of storage facilities.

Striving To Change Attitudes

Perhaps the most difficult problem faced by the county agents and specialists in this regard has to do with attitudes, which, peculiarly enough, are found in similar patterns in the North, South, East, and West.

Some farmers show an utter dislike for home gardening, especially those who have grown exclusively such traditional cash crops as tobacco, cotton, or wheat. Some families fail to consider the production of the family food supply as an important phase of farm management.

Existence of these adverse attitudes leads the Extension Service to reemphasize, in its educational program among the rural people, the economic value of the family food supply and its contribution to the health and well-being of the family. If the rural family reaches the ultimate objectives of the Extension Service's nutrition program, each member will be vigorous, free from ailments indicating faulty diet, will show a high resistance to diseases, and will eat protective foods. The homemaker will select foodstuffs on the basis of their nutritive value, grades, and standards, and will keep a record of food expenditures. She will check each meal to see that it meets body needs for each member of the family and that appetites are tempted and the food is pleasing to the eye. She will prepare essential foods in variety, enhance their flavors, and follow time-saving and sanitary methods throughout the processes of preparation.

In connection with the home nutrition program, the rural schools will serve well-balanced, adequate, and appetizing lunches to every pupil. Great advances have been made by extension workers, leaders, and cooperating homemakers during the past decade toward reaching these goals in practically every State.

Better Living in 2 Million Homes

Though there is no way to measure fully the achievements of the Extension Service in the field of nutrition over the last 27 years the records show that in 1940 better living in more than 2,000,000 homes was a direct result of work done by staff members and volunteer leaders. An outstanding contribution of the Extension Service to the field of adult education is the development of volunteer local leaders—men and women who serve without pay to help their communities. Approximately 286,000 women served in this capacity in 1940, helping to forward the work of the home demonstration agents. Many of the leaders received special training from the agent and

extension specialist and in turn taught their own local group, giving freely of their time, effort, and skill. More than 110,000 of these women acted as leaders in the foods and nutrition work.

As a direct result of extension nutrition work 112,372 farm families budgeted their food expenditures for a year, 203,906 followed food-buying recommendations, 496,203 served better-balanced meals, and 379,706 families produced and preserved home food supply according to an annual food-supply budget.

Following the advice of extension nutritionists and home demonstration agents, 991,488 families canned 85,616,285 quarts and 16,160,271 other containers of fruits, vegetables, jams, jellies, and meats. These products were valued at \$25,693,077.

Local Examples Show Progress

Going into State records we find that a wide variety of nutrition activity was under way, with varying degrees of success. The following examples illustrate accomplishments in various States.

The "keep growing" demonstration initiated by the Extension Service of Nevada in 1922 and still a going project, is an excellent example of a successful effort to arouse State-wide interest in nutrition by vitalizing and coordinating community efforts to improve family food habits. The project began with 500 children in 8 communities. Last year it involved 3,500 children in 80 communities. The percentage of children with good nutrition increased from 24 in 1922 to 80 in 1940. Milk was the outstanding food deficiency, therefore, the first effort was concentrated on increasing milk consumption as well as milk production in some areas. Census figures and other data show that the farm family per capita consumption of milk is now nine-tenths of a quart per day.

Vegetables and fruits do not grow very well in Nevada, but work has been done to find seed varieties that will stand Nevada conditions. A standard for an adequate Nevada vegetable garden was developed. The 4-H Club "pocket handkerchief" gardens have been encouraged—tiny ones 10 by 10 feet for the first year, so father would not object to sparing the irrigation water.

The University of Nevada reports a marked improvement in physical and nutritional condition and posture of freshmen entering college, and states the belief that to a large extent, this is due to the many years of intensive "keep growing" demonstrations.

Dietary surveys conducted in many States resulted in thousands of farm families showing better methods of cookery, less fried food on menus, use of two fruits and two vegetables daily to help in supplying the necessary protective foods, serving of hot school lunches and better preservation of home-produced meats.

South Carolina set out to improve the status of each farm family operating on a diet below the margin of safety. The first effort was to locate families producing 75 percent or more of their requirements. This group encourages more farm families to do likewise. The 75 percent "live-at-home" farmers, along with their tenants, are being enrolled and publicly recognized by receiving a certificate after they have met the requirements set up under the program.

To further the live-at-home program in Louisiana, 20,000 fruit trees were planted on farms. After the flood in southwest Louisiana,

information on seed packages and cultural practices for home gardens was furnished in quantity to the farm and home agents, who worked with various agencies and with the farm people to see that gardens were planted to provide a quick source of food for the families involved.

The live-at-home campaign in Texas resulted in an increase in the conservation of food. Interest was revived in simple, inexpensive conservation methods—things that anyone can do no matter how meager the food—preservation equipment and supplies, or the storage space, or the money for providing them. As a result, storage mounds have been used—small ones that will hold a week's supply of products which have to be used quickly when once the storage space is opened; and large ones into which the winter's supply of well-cured sweetpotatoes are placed. More than usual interest in up-to-date information on canning, preserving, brining, and pickling has been shown because of the abundant supply of good fruits and vegetables.

The Texas Extension Service was also active in developing the Texas food standard which is now published by the State nutrition committee. It has appeared in many schools as a large poster and has been translated into Spanish for use in schoolrooms and lunchrooms. Exhibits of this standard are placed in grocery stores, schools, and mattress centers, and food stamp users receive a copy of the standard with their groceries. Many agencies in the State are working together to show what a good diet is.

In West Virginia the nutrition specialist developed a "Perky and Pokey" exhibit, which contrasts the food cellars and the dinner tables of the "Perky" and "Pokey" families. These exhibits have been widely used at State, regional, and county meetings. The legend that catches attention for this display is, "Are you a Perky or a Pokey?"

In Tennessee more than 65,000 farm families enrolled in 1940 through post-card signatures in a campaign which has as its objective encouraging every farm family to grow at least 75 percent of the food for the family and feed for livestock. This campaign is sponsored by the Governor and has the cooperation of every agency in the State concerned with agriculture.

In Nebraska the program has been adapted to meet the serious problems caused by continued drought. The contribution of each extension worker has been mapped definitely, both as to character of work and time of year for each activity.

Alabama's program, "A demonstration garden in each community of the State in 1940" is being continued. More than 50 percent of these demonstrators kept records in 1940.

In California vitamins and minerals contained in the meals eaten during 1 day were computed by groups of farm women living in six counties. Most diets were found to be below the minimum allowance in calcium. Only a few were adequate in B₁, and many were low in vitamin C. In Los Angeles County 100 farm women spent a day figuring the adequacy of their meals. So convincing was this procedure that there was an immediate demand for a series of demonstrations on the use of whole cereals, citrus fruits, tomatoes, milk, and milk products. Studies made in three counties show that the greatest value of home production in California is in improving family nutrition rather than in increasing money saving.

Diets for Low Incomes Planned

Low-income families often do not make good use of the small income they have, although it is clear that a large percentage of farm families have better diets than do comparable families in cities and towns.

One major assistance to low-income groups is the increased emphasis home demonstration agents generally are placing on low-cost nutritious foods, on stretching the food dollar, on home food production, and the like. Massachusetts home demonstration agents, for example, during the last year distributed, largely to low-income farm families, 30,000 copies of a bulletin on stretching the food dollar, prepared on the basis of \$2 a week per person as the minimum food cost for good nutrition.

As a result of the nutrition program among Negroes in South Carolina, many families have improved their diets. For instance, on 2 plantations in Allendale County, in 1937, only 4 of the 23 Negro tenant families planted potatoes and few planted vegetables or kept chickens. In 1940 every one of these same tenant families had a spring and fall garden, all planted potatoes, each family canned an average of 350 quarts of foodstuffs, and the average chicken flock numbered 21 birds.

Results of a strong extension campaign looking toward a dairy cow on every farm in Georgia are now showing in census figures. In 1930, 39 percent of the farm families in Georgia did not own a milk cow. By 1935 the figure had dropped to 28 percent, and from 1,200 to 2,000 additional families have been getting cows each year since the 1935 census.

In New York State, as elsewhere, 4-H Club gardens are doing much to demonstrate the value of the family garden to the 25 percent of the farm families that do not have a garden. Last year, the average 4-H garden in the State produced \$121 worth of vegetables for the family table.

The Extension Service has been instrumental in initiating school lunches in rural schools throughout the United States since 1915. With the establishment of the Federal Surplus Commodities Corporation, surplus commodities were made available for school lunches. This work has expanded as other agencies have extended more cooperation in order to reach a larger proportion of needy and undernourished children. Home demonstration agents worked with more than 26,900 schools in 1940 in connection with school lunches, affecting approximately 1,592,000 children.

Extension Service activities include preparation of circulars containing recipes and suggestions for school-lunch management, working with school superintendents and teachers to plan school-lunch equipment and arrangement of space for working and serving, doing educational work with groups of mothers, teaching them the importance of a good lunch at school, and what to put in the box if the child carries his lunch.

Sumter County, Ga., is a typical example of how the project works. There are lunchrooms in 8 of the 10 schools of the county. The home demonstration clubhouses are used for the preparation and serving of the lunches. All equipment was furnished by club members. Canned foods were put up by club members in the community cannery. Menus

are planned by them, and the lunches are usually prepared by club members who are on W. P. A. Supplies are provided by the Surplus Marketing Administration.

Freezer Lockers Solve Storage Problem

Development of the freezer locker has added another category to the extension nutrition program and another efficient means of storing farm products. Many States have seen a rapid increase during the past few years in the use of this device. In Iowa, for example, approximately 80 percent of farm families use freezer lockers. The State of Washington reported more than 300 commercial cold-storage lockers, with an average of 291 individual lockers to the plant.

This method of storing food has promoted better diets through the increased use of fresh-frozen fruits, vegetables, and meats produced on the farm. Extension representatives have assisted homemakers and plant operators in preparing food for the lockers, in managing locker space economically, and in using frozen foods.

Refrigerator plants cured approximately 2 million pounds of pork and stored 100,000 pounds of beef for farmers in Mississippi.

Numerous cases were reported in 1940 of farmers building their own cold rooms for use on the farm. For example, one farm family in Utah remodeled their dairy barn into a cold-storage plant to serve the community.

Meeting Problems in Territories

Problems of rural families in the Territories are somewhat different from those in the States. In Hawaii, for example, 70 percent of the food has to be imported. Then, too, there are racial differences. A large Japanese population presents difficulties of language, among the older inhabitants especially, and dual or hyphenated citizenship among the younger.

During the year a successful nutrition program was launched and carried to completion by the agents. All rural people, including plantation laborers, were urged to plant gardens. Both agricultural and home demonstration agents put this program on their "must" lists. As a result more fruit and vegetables were raised than ever before, and some winter varieties were shipped to the mainland. Through cooperation with the extension plan, Hawaiians can supply an even larger variety of food items than they grow now.

Problems in citizenship often give concern. Children of Japanese, Chinese, Filipino, and Korean parentage do not have the same background that the mainland youngsters possess. By means of a special Americanization course in cooperation with the university extension and 4-H Clubs, members were taught the true meaning of democracy at regular monthly meetings. Besides learning about our Federal Government, the club members learned the obligations and duties that citizenship entails. They learned that a good citizen is an active citizen who willingly takes part in all civic duties required of him and is loyal to the united cause for which democracy stands.

Meeting Food-for-Defense Needs

Spotlight on Dairy Industry

Extension dairy education work took on new significance during the year because of increased demands for butter, cheese, and milk, both at home and abroad.

Through special conferences, schools, and through the regular information channels, rural people were made conscious of the value of grass as a feed for livestock and as a soil conserving and preserving crop. They were brought to realize more than ever before the part dairying plays in feeding a nation engaged in the strenuous work of defense and a sister nation caught in the clutches of war. Therefore, pastures must be kept at a high production level by reseeding, fertilizing, liming, and careful grazing management.

Millions of tons of high-quality hay were stacked or put in barns, and an estimated 2 million tons of grass silage was added to the dairy feed supply during the period.

In Pennsylvania 4 years ago 25 to 30 dairymen put up grass or legume silage; in 1940 more than 2,000 followed this practice. No new development in feeding in that State has been accepted by dairymen so quickly as the grass and legume silage.

Approximately 20 million dollars was added to the wealth of the cattlemen in the 77 counties of Oklahoma through the construction of silos in a campaign carried on by the Extension Service.

As a result of an intensive dairying program in Alabama, county agents reported 353,224 acres of improved pasture in the State, 49,276 acres of kudzu, 14,030 acres of *Lespedeza serecia*, and 3,918 acres of alfalfa. These agents reached 9,828 farm families with method demonstrations on selection, feed, care, and management of a family cow.

Through the cooperation of all agricultural agencies in Oktibbeha County, Miss., a successful pasture program was carried out during the year. The results were: 1,816 acres of pasture terraced, 5,500 acres clipped, 480 tons of basic slag used, 94,000 pounds of grass seed and 3,000 acres of oats planted.

In Missouri, 1,153 dairymen, following extension recommendations, constructed emergency silos, most of which were of the trench type. Dairymen in 108 counties grew 1,380,809 acres of drought-resistant pasture, worth more than 4 million dollars in supplementary feed during the hot summer months. Further, in cooperation with the extension year-round pasture program, 27,206 farmers in 105 counties grew 389,871 acres of fall and winter pasture.

Pasture demonstrations in Colorado show that feed received from pasture is equivalent to 75.2 tons of alfalfa hay or 6.27 tons per acre. These demonstrations provide proof of the value of good pastures that farmers can see and understand.

In Arkansas 600,000 pounds of vetch seed were saved during the year, because of the live-at-home practices taught by the Extension Service. In addition, quantities of seed of hop clover, alfalfa, and lespedeza were saved.

Dairy-herd improvement association work continued to grow during 1940, reaching an all-time peak in the number of herds and cows tested for milk and butterfat production.

During the year 1,787 new associations were organized, with 39,511 members. On January 1, 1941, there were 1,383 associations in operation, with 31,381 herds consisting of 763,502 cows on test. Compared with the figures for January 1, 1940, this represents an increase of 83, or 6.4 percent, in number of associations; an increase of 3,433, or 12.3 percent, in number of herds; and an increase of 87,361, or 12.9 percent, in number of cows on test.

In Colorado, 370 cows on test produced over 500 pounds of butterfat each. They returned an average of \$130 above feed cost, whereas the average cow in Colorado dairy-herd improvement associations, producing 346 pounds of butterfat, returned about \$78 above feed cost and the average milk cow in Colorado returned only \$31 above feed cost.

Summarizations by the Pennsylvania Extension Service show that the average cow in dairy-herd association work, giving 8,223 pounds of milk a year, produces her milk at approximately 69 cents a hundredweight cheaper than the average cow in Pennsylvania with 5,100 pounds of milk per year.

On January 1, 1941, 328 cooperative dairy-cattle breeding associations were in operation in the United States. Their total membership was 10,881 dairymen, who owned or leased cooperatively 1,529 dairy bulls. This is an increase over January 1940 of 8 percent in number of associations, 44 percent in members, and 9 percent in number of bulls owned or leased cooperatively.

The increase in cooperative dairy-cattle breeding association work is due largely to a substantial increase in the number of artificial breeding associations. Of the 328 associations, 291 were the regular bull associations and 37 were artificial breeding associations.

In Emery County, Utah, more than 500 heifers have resulted from one bull association since its beginning. This has greatly improved the family milk cow in the rural communities of the four sections of the county.

Utah now has 157 groups of farmers organized in 15 bull bloc associations under an Extension Service-Farm Security Administration program. During the year, 22,251 farmers were aided by extension workers in obtaining purebred sires, while 24,848 were aided in procuring purebred or high-grade females. Keeping bulls alive until they can be proved is still a big problem among dairymen. Connecticut, in an attempt to solve this problem last year, transferred 50 bulls, 3 to 5 years old, from one farm to another where they will be kept in service until records are available to prove them.

Artificial breeding of dairy cattle, first practiced on a State-wide scale in New Jersey in 1938, is the most powerful tool the dairy industry has ever known. It can bring rapid improvement to masses of cattle. Although this practice is only beginning, it is gaining rapidly in many sections of the country. As an example, there are more members in the Central Maine Artificial Breeders' Association, which covers a radius of 45 miles from Newport, at the end of the first year than there are members of dairy-herd improvement associations in the entire State.

The Central New York Artificial Breeders' Cooperative began functioning June 1, 1940, and now approximately 1,000 dairymen

and 7,000 cows constitute its membership and resources. The use of proved sires was increased tenfold in the area in 1940.

In combating diseases of dairy animals, 346,169 farmers followed control recommendations of the Extension Service.

Assistance was given to dairy manufacturing plants. In Wisconsin, for example, a number of receiving plants were helped to correct difficulties in composition control. As a result many thousands of dollars were returned to patrons. In one plant alone the returns to patrons were increased by over \$14,000 for the year. In a larger cooperative plant, the inauguration of a system and installation of equipment for scientific quality control resulted in a market that meant about \$120,000 more a year to its 600 farmers.

Another illustration of the emergency work done by the extension dairy specialists is the case of three large fluid-milk plants that were about to be shut off from their fluid-milk market because of high counts of bacteria. Each of the plants called on a specialist for help. A few days' work by the specialist resulted in correction of the difficulties so that the milk supplies of the plants were acceptable to their city health department. In the case of one of these plants, the difference between the income from the milk sold on the Chicago market and income from the milk when used for manufactured products was between \$400 and \$500 a day. Every day that this plant would have been shut off from the fluid-milk market would have resulted in that loss to the farmer members of the cooperative.

Utah conducted a mail inspection service, whereby dairy manufacturers submitted samples of their butter, cheese, ice cream, and market milk to the extension specialist, who scored the products according to market standards.

Poultry and Eggs Put on "Must" List

When the call went out from the Secretary of Agriculture to the farmers of the United States to increase production of certain foods to meet defense needs, poultry and eggs were well to the fore. Preliminary surveys, conducted through the cooperation of the Extension Service, revealed that numerous vacant coops and houses could be put into immediate use and thousands of farmers, with moderate encouragement, could increase their flocks of laying hens.

The poultry specialists in all 48 States working through county extension agents have entered wholeheartedly into the food-for-defense program. In accordance with the recommendations issued, the campaign early showed results in an increase in market receipts and a decrease in the number of hens sent to market during the late spring and summer. A striking example comes from Tennessee where a cooperative live-poultry car shipment was made each week. In the week before the Secretary's food-for-defense program was announced, approximately 20,000 pounds of hens were shipped out at one loading point. After the release of publicity the shipment in the following week was reduced to less than 2,000 pounds, consisting primarily of old roosters and cull hens. The food-for-defense campaign also showed tangible results in the sale of baby chicks, as indicated by the hatchery report of the Agricultural Marketing Service.

The 1940-41 extension poultry program was built around the five factors most responsible for success, namely, better stock, better and more economical feeding, housing, marketing, and disease control.

For a long period there has been an upward trend in egg production. Extensive use of artificial lights, warm and comfortable houses, more complete and better balanced rations, are all contributing causes, but most important is the influence of scientific breeding on performance of flocks.

Better stock, which involves not only higher average egg production, but more uniform size, type, color, and meat qualities, was promoted in most States. Pullorum disease gradually is being brought under control through blood testing. In Arizona, for example, a study of 15,712 chicks from State hatcheries revealed a loss of only 4 percent.

The national poultry-improvement plan, which is helping producers throughout the country to eliminate pullorum disease and improve the quality of their birds, was in operation during the year in 44 States. In 21 of these States the poultry specialists served as a contact representative between the United States Department of Agriculture and the State.

Great strides were made in promoting the record-of-performance phase of the poultry program. Alabama reported that in 1935 there was not a single record-of-performance flock in the State, but in 1940 there were 16 with 2,670 birds. In 1935 there were 19 hatcheries participating in the program with an egg capacity of 118,574 eggs. In 1940 there were 83 approved hatcheries, and 7 certified hatcheries with a total capacity of 1,642,643 eggs.

Demonstration flock records for 30 States were compiled to demonstrate improved practices and to show trends of poultry production.

The high price of commercial feeds during the early part of 1940 and the unusually low prices of eggs brought an unusual number of requests for assistance in compounding more economical rations. The extension Service met this demand by submitting formulas compounded of locally produced grains, grain products, and other ingredients.

Poultry housing continues to be one of the problems of both farm and commercial poultrymen. In recent years more information has become available concerning the importance of insulation in controlling temperature and maintaining adequate winter egg production. Extension poultrymen in the States kept the farmers informed concerning the relative merits of new equipment and recommended housing facilities. A survey in Kansas showed that 40 percent of the farms had satisfactory housing conditions. In 1926 only 18 percent were given this classification. Housing and equipment are important phases of the project in that State.

Poultry schools were held in many States. Those in Ohio were conducted in connection with marketing work. These schools of 4 or 5 weeks' duration emphasized poultry management with particular reference to such factors as breeding, housing, feeding, frequency of collection of eggs, and cooling, grading, and packing methods which influence the net return to poultrymen. Other schools gave poultrymen sound basic background in the production of quality eggs and in the problems of cooperative marketing.

Minnesota devised a new plan for building "streamlined" poultry houses, which are insulated by a fill of flax straw or shavings between studdings in a 6-inch wall.

Preventive measures were emphasized in the extension program for control of poultry diseases. During 1940, major attention was given to the testing of breeding flocks under the national poultry plan to control pullorum disease; vaccinating the pullets to prevent fowl pox; preventing internal parasites through clean ground brooding; and controlling tuberculosis, infectious bronchitis, roup, and other poultry diseases through a program of sanitation management. In Kansas alone, 525,235 birds were tested for pullorum. During the past 20 years pullorum infection in tested flocks in Massachusetts has been reduced from 12.5 to 0.5 percent. In 1940 that State was able to reproduce its flocks from 460,045 birds in nonreacting flocks.

Marketing methods were discussed with poultrymen at numerous meetings and demonstrations. A year-round quality marketing program launched in Missouri in 1940 by the Extension Service through the cooperation of hatcheries, resulted in the sale of approximately 2,000 cases of quality eggs in 20 weeks with net increased returns of more than \$100 a week, or a total of \$2,502. Almost 34,000 families in 100 counties of that State followed production-feeding recommendations.

One egg auction in Illinois disposed of 7,381 cases. Because the eggs were graded they returned to the producers \$3,875 above the price paid for ungraded eggs. As a result, farmers in the vicinity changed the quality of their birds to meet the demand for larger eggs and uniformity of shell. In one county 60,000 chicks were purchased from one breeder who has a reputation for having such stock.

Activities among turkey growers emphasized the trend toward larger flocks, and more farmers relied on hatcheries or breeders to supply them with poults. An outstanding achievement of recent years has been the progress made in marketing turkeys on a uniform dressed graded basis. This work is usually conducted in cooperation with turkey growers' associations. Major turkey-producing States marketed their 1940 crop according to United States Government grades.

Use of poultry manure as fertilizer has taken on a new significance since scientists discovered its value when mixed with phosphate. They found that 100 hens will produce sufficient fertilizer in combination with 728 pounds of superphosphate to equal approximately eighteen 100-pound bags of commercial fertilizer. Many farmers followed the recommendation of the Extension Service and added superphosphate to the dropping pits each week.

Poultry 4-H Club work was carried on in all 48 States and Alaska, Hawaii, and Puerto Rico. During the year 83,231 boys and 93,283 girls, owning 5,452,480 birds, were enrolled in this project.

Results of the 1940 extension poultry program show that 109,028 families followed an organized improved breeding plan as recommended; 307,887 followed recommendations in purchasing baby chicks and rearing them; 127,149 improved their poultry-house equipment; and 340,991 families followed the extension sanitation program in the disease and parasite control.

Long-Time Gains Made for Livestock

Extension programs serving an industry as large and as important as the livestock industry naturally influence the economic and nutritional well-being not only of farm people but also of urban people, and of men in the service of the country.

Livestock in the broad sense produces about one-fourth of the income received for the sale of all farm products, and is the greatest single source of income to the American farmer. Livestock is the most important source of human food, furnishing 80 percent of the fat and 52 percent of the protein we eat, and 40 percent of the total energy utilized by our bodies. Approximately half of the Nation's 2 billion acres of land is in pasture or range, and grazed by livestock, and 3 out of every 4 acres of our cropland are devoted to feed-crop production.

Progress in Tuberculin Testing

The declaration of the entire country as a "modified accredited" area as regards bovine tuberculosis was a milestone achievement in animal health in 1940. After 23 years of continuous effort on the part of the Bureau of Animal Industry, in cooperation with the Extension Service and other agencies, the goal of completing the testing of all herds in the United States was reached. It meant that less than one-half of 1 percent of all the cattle in all the counties of the 48 States, Hawaii, Puerto Rico, and the Virgin Islands, suffered from this disease. It meant that 271,282 herds, or 3,887,705 animals, were accredited, and 6,197,086 herds with 62,223,228 animals were under supervision. It meant that 232,000,000 tuberculin tests and retests were given. In that time 4,000,000 tuberculous cattle were detected and removed for slaughter. Extension's part in this achievement was largely educational and organizational in showing farmers the dangers of the disease, and how to control it by individual and cooperative effort. State livestock sanitary officials played a major part in the work. Tuberculin testing is being continued on a large scale as a follow-up.

Extension workers in every State also assisted the Bureau of Animal Industry in the control and elimination of Bang's disease. During the report year 590,393 herds composed of 6,937,428 cattle were tested. Of this number 171,953 animals, or 2.5 percent, reacted to the tests.

On July 1, 1940, New York State had 4,000 herds operating under the Federal and State Bang's disease elimination program; Ohio had 46,000 herds; Minnesota, 62,000; Pennsylvania, 60,599; and Wisconsin, 71,800 herds.

Animal husbandry has been involved in most programs carried on for the betterment of farm and general conditions. Extension animal husbandmen throughout the Nation served during the year on many planning and other over-all committees or acted as consultants. They cooperated with the project leaders in other extension fields in the development and conduct of programs, and attempted to integrate their activities with the larger programs serving the whole field.

More Hogs for Defense

The call for increased hog production for national defense was quickly passed on to hog farmers in every community by extension agents, along with locally adapted suggestions for better feeding, management, and other practices for increasing production on a sound basis.

The agricultural conservation program and the additional rotation pasture made available through new practices, made it easier for most farmers, especially tenants, to practice swine sanitation by moving the animals from one enclosure to another. Much stress was placed on sanitation in swine production throughout the Nation.

Use of the best practical rations for hogs was emphasized by extension agents. In Kansas, for instance, 18,000 producers in 85 counties made up their hog rations largely from home-grown feeds as recommended.

Other topics in the extension program included proper hog-raising equipment, selection of breeding stock, and feeding and management of sows before and after farrowing.

When Indiana farmers raised 6,200,000 hogs within the year, and recorded a 31-percent increase over the previous 10-year average, unusually strong demand was made on county agricultural agents and State extension workers for information on the location of breeding animals, uses of economical feeds, methods of feeding, the value and place of protein supplements and mineral mixtures, and plans for hog houses, self-feeders, water fountains, and farrowing pens. The foundation for this State's hog program was laid at 24 hog schools during the winter months.

For 27 years Nebraska has conducted successful livestock and feeder meetings. Last year 128 were held, and 13,727 farmers attended. A changing trend in emphasis was noted in this State, from feed production to feed utilization through livestock.

Dairy farmers in New York State were supplied with stable record sheets to be used in checking on disease problems, breeding efficiency, calving dates, and calving conditions. Dairy-cattle health has been made a part of the extension activities in 52 of the 55 New York counties that have agents.

Extension had an important part in the control of other diseases and pests. For example, agents and specialists in Arizona helped farmers to eradicate lumpy jaw or "woody tongue," a disease prevalent in that State; also cancer eye and pink eye, screwworms in cattle, and ox warble or grubs-in-the-back. Control of bots and the correction of dental disorders in horses were also important projects.

In Washington State, extension demonstrations resulted in the treatment of 2,175 beef cattle for control of cattle grub.

Oklahoma workers devised an ingenious method of trapping livestock flies when animals came to drink, which greatly reduced infestation of horn flies.

State reports show that during the year, 136,262 beef cattlemen, 49,450 sheepmen, and 260,445 hog raisers followed disease control methods as recommended by agents and specialists.

An outstanding trend in livestock production throughout the country is toward better breeding. During the report period, extension workers assisted livestock owners in procuring purebred sires for

21,150 beef cattle owners, 17,370 sheepmen, and 22,875 hog raisers. They helped a similar number in procuring purebred or high-grade females for their flocks and herds. In addition, they assisted with the organization of 353 bull circles, 117 sheep circles, and 1,100 hog circles.

An example of the growth in better beef breeding is found in Ohio. During the past 5 years Gallia County alone purchased more than 2,000 head of grade and purebred breeding animals. To aid in the finishing-cattle-for-market program, the Ohio Extension Service held cattle-feeder schools and outlook meetings. Topics discussed included getting cattle started on feed; making use of home-grown feeds, corn, hay, and silage; necessity for, and value of protein supplements; importance of minerals in cattle fattening; variation in price of different grades of fat cattle during the year; influence of weight on selling price of fat cattle; and market outlets. Ohio also conducted 10 cattle-feeder tours in 9 counties, with an attendance of 1,980 persons. More than 3,000 steers were fed by Ohio 4-H boys and girls, who received \$346,860 for their efforts.

Utah's livestock-improvement program, in which Extension played a prominent part, resulted in the importation of hundreds of young bulls, breeding heifers, and cows from leading herds of nearby States, and the transfer of scores within the State. County agents and specialists conducted tours to these herds for the benefit of the prospective buyers, both adults and 4-H Club members, and assisted them in selecting suitable animals for breeding.

Missouri conducted beef cattle-grading demonstrations in 34 counties to give farmers an opportunity to learn grades of cattle and to see that the better grades are the result of using good beef bulls of the right type.

Unified action of educational and research forces throughout sheep-raising areas of the country, combined with the cooperative efforts of producers, marketing agencies, and processors have been effective in producing a better quality of lamb meat for the consuming public. Lamb-grading demonstrations have promoted the selling of lambs on a graded basis.

Sheep schools and corral-fence meetings were held in all sheep-raising States to discuss preparation of wool for market, docking, dipping, controlling internal as well as external parasites, breeding for early lambs, proper winter care of bred ewes, feeding grain to lambs, and selecting breeding rams and ewes.

Indiana held 23 schools to explain the preparation and administration of copper sulfate for parasite control, and Illinois Extension Service distributed 1,000 leaflets and 1,000 posters on the subject.

Extension workers also conducted tours to feed lots, lambing pens, shearing corrals, ranges, and farm pastures. More than 3,700 sheep producers in 55 counties of Nebraska were given instruction in ewe culling, lamb docking and castration, sheep drenching, and wool preparation. In the sheep States demonstrations of portable sheep dippers caused increased interest in lice and tick control. A dipping service was operated in 12 New York counties. In Arizona 2,000 head of mohair goats were dipped under direction of the extension representative.

Extension work in meats has become a major part of the effort to help farm families feed themselves. Increasing effort has been made to present the economic-nutritional situation as a whole so that all the people, including the managers of some 3,500 meat-curing and locker plants, will realize that they have an important part in keeping America fit.

Thirty States reported special meetings or schools for managers and patrons of frozen-food locker and meat-curing plants. At these sessions food-handling procedures shared the stage with nutritional and economic facts.

With the increasing popularity of the preservation of meat by freezing and storing in freezer-locker rooms, many States carried on meat-cutting demonstrations in which farmers and plant operators often cooperated. In Nebraska, for example, 1,767 persons attended 15 demonstrations which also included the proper method of cooking each cut.

Kansas extension workers conducted 65 demonstrations on cutting, curing, and canning of pork, beef, and lamb, which reached 825 communities and stimulated 14,483 persons to adopt the practices recommended. During 1940 extension workers advised farmers in the butchering of 15,349 beef animals, 4,086 sheep, and 55,390 hogs.

As machines are simplified, perfected, and brought within reach of the individual farmer or the cooperative to which he belongs, horses and mules are being replaced by power units on the farm. Extension efforts were centered on assisting farmers in getting their mares bred to purebred stallions, in raising enough quality colts through proper feeding and care, in supplying needed replacements, and in determining power needs and costs when decisions were to be made on purchasing machinery or developing horsepower.

In most States horse and mule numbers declined, but in Mississippi mule colt production continued to increase. In that State extension educational activities relating to market classes and standard grades stimulated interest among farmers in improving the quality of their animals.

Emphasis on Soil Conservation

Realizing that good farm homes, good crops and livestock are products of good soil, extension agents have put major emphasis on erosion control and conservation of our soils as a basic natural resource. The call on farmers for increased food production to meet expanding needs of defense and lend-lease programs makes sound farm management in terms of soil conservation all the more important. Mistakes of the last war, such as continuous cultivation denuding the plains of native cover, plowing up land that should have been left to trees and grass, must be avoided.

Extension agents help farmers check soil erosion and improve their soil in many ways. Demonstrating, encouraging, and advising on increased grass and livestock production in suitable areas where needed, improved pastures, crop fertilization, introduction of new legumes and forage crops, terracing, weed control, seed improvement, good farm management, and crop rotation systems are means being employed. Extension specialists in agronomy, engineering, forestry,

and other subjects assist the agents. In cooperation with the Soil Conservation Service, extension soil conservationists are employed in 37 States and Hawaii as State leaders in soil conservation education. These specialists work closely with other extension specialists and help correlate the activities dealing with land use and soil conservation.

Extension work in soil conservation is carried on in close cooperation with the Soil Conservation Service, Agricultural Adjustment Administration, Farm Security Administration, Tennessee Valley Authority, and other agencies. The A. A. A. grant-of-aid program, involving the use of limestone and phosphate on the land and the growing of soil-conserving crops, has contributed to the conservation of the soil in a large way.

During the year 65,963 Missouri farmers used 1,382,974 tons of lime to replace the loss of lime in drainage water and by cropping, and to check the decline in soil fertility. This is more than three times the amount used in 1939, when the previous high peak in tonnage was reached. Extension agents explained the grant-of-aid program to farmers, demonstrated the effectiveness of lime and phosphate, and advised farmers on technical phases of using lime phosphate to best advantage.

In the country as a whole 594,244 farmers applied 10,614,783 tons of lime to their land. Also, 547,724 farmers applied 3,277,934 tons of recommended fertilizer, 547,223 plowed under green manure on 6,449,691 acres, and 463,149 carried on recommended crop rotation programs on 23,939,109 acres.

While extension agents have long demonstrated various conservation practices, a major trend in recent years has been toward erosion control and conservation demonstrations involving the best use and proper care of every acre on the farm. In 46 States and Hawaii 3,722 such demonstrations, with 2,583,000 acres, have been established. Technicians of the Soil Conservation Service have assisted in setting up these demonstrations by preparing the farm conservation plans and helping in their application. Extension agents have made good educational use of the demonstrations by taking farm groups to them, talking them over with neighboring farmers, and the like. For example, Arkansas during the year held 35 such tours with an attendance of 3,100 farmers.

Extension agents, with the cooperation of technicians of the Soil Conservation Service and other agencies, assisted farmers during the year in 38 States in organizing soil conservation districts. Five hundred and forty-eight districts, including over 332 million acres, had been organized by June 15, 1941. After their organization, extension agents assisted the governing bodies of such districts by providing leadership in educational activities.

These districts were organized by farmers and State soil conservation committees under State laws to meet their local erosion-control and soil-conservation problems cooperatively. Thus, the farmers are enabled to get help from the Soil Conservation Service, Extension Service, Forest Service, and numerous other local, State, and Federal agencies. Extension agents carried the leadership in the educational work. They explained the district programs to farmers, emphasizing the need for conservation, and told them how to obtain assistance from

the district's program and how to find and develop neighborhood and community leadership. Districts are being organized at the rate of about 20 a month. By December 1940 a total of 48,856 complete farm conservation plans in 314 districts had been made by farmers with the assistance of Soil Conservation Service technicians.

Conversation plans, like those of the demonstration farms, provide for proper use and care of every acre on the farm. In a number of States a large proportion of the farm land is in organized soil conservation districts. Through these districts is being developed a large-scale unified conservation program, involving agronomy, engineering, forestry, livestock production, and balanced farming as these relate to erosion control and soil conservation and to good farm management.

Kansas held its third all-State soil conservation field-day tour in which 99 counties were represented by 1,403 agricultural leaders.

County and home demonstration agents in Arkansas assisted the soil conservation district supervisors in their educational work by conducting 35 tours with 3,100 in attendance.

In 1940 Illinois had 94 counties out of 102 enrolled in a coordinated project in soil improvement and erosion control.

Extension workers in Missouri conducted county soil conservation schools at which 5,258 farmers received training in cropping practices, soil treatment, and soil conservation practices, and were assisted in working out land-use operations best adapted to their individual farms.

Cotton land in Louisiana is being brought back into fertility by the planting of water-absorbing plant cover on terraces or contours to slow down the force of run-off water and help prevent soil erosion, and by the addition of essential soil elements such as phosphorus and lime. Areas are also seeded to plants which are capable of forming a sponge-like carpet that will increase the water-holding capacity and will include sufficient nitrogen-gathering legumes to increase the nitrogen in the soil. These shifts in land use reduce the area to be cultivated, and increase the pastures and hay so that less feed will have to be bought.

Farmers Improve Seed Cooperatively

Seed-improvement work in 35 States was handled through a crop-improvement association made up of farmers cooperating with the agricultural college, the Extension Service, and the experiment station. The purpose of the seed-improvement program is to develop and make available to farmers a reasonable amount of the best seed of varieties that have been proved to be adapted to the State.

Certified seed is grown by members of the crop-improvement association and sold to interested farmers so that, in almost every State, it is possible for 75 to 90 percent of the farmers to have seed not more than 2 years removed from certified seed. In most States certified seed is produced for local consumption. However, in the Northwestern States there is a type of certification for clover and alfalfa seed that is grown largely for sale in other areas than where produced.

Missouri offers an example of the increased interest in the use of certified seed. In that State more farmers planted certified seed in 1940-41 than in any similar period since such seed has been available.

Improved Pastures Show Results

Pasture and forage production has been increased tremendously by the grant of aid under the AAA covering lime and phosphate and also by the introduction of new forage and grass crops.

An outstanding example of a useful new crop is the ladino clover introduced in New England and other Eastern States. About 50 percent of the dairymen in this area are now growing a few acres of ladino clover largely for pasture but to some extent for forage and grass silage. In every State in the Northeast ladino clover has passed the demonstration stages, and farmers are anxious to improve their pastures as fast as they can obtain the seed of this crop. In most areas ladino clover is seeded with a grass mixture. Usually orchard grass has proved to be one of the best grasses to use. The combination of ladino clover and grass not only gives a better pasture feed for dairy cows but also makes a better sod.

In the Southern States a mixture of grass and lespedeza is being used more and more for pastures. The grass furnishes feed during the early spring, and lespedeza comes on with the hot weather and helps to carry pasture through the summer and fall. Another crop used largely in the South, for both pasture and winter cover, is crimson clover. Both lespedeza and crimson clover are valuable for the South because they enable farmers to produce their own seed supplies and avoid a cash outlay at a time of year when they have little cash for any purpose.

Minnesota featured a three-point all-season pasture program which included satisfactory grazing and better management of permanent pastures, the use of rotation pasture combinations of legumes and grasses, and the use of supplementary crops such as winter rye, small grains, rape, sudan grass, second-growth alfalfa, and meadow aftermath. Rotation pastures, including the use of mixtures of grasses and legumes in suitable combinations were urged strongly, in cooperation with the Soil Conservation Service, in all areas of the United States where livestock was kept.

Ohio's extension pasture program consisted of four phases: (1) Treatment of permanent pasture with lime, fertilizer, and manure, and occasional reseeding, (2) management of permanent pastures to maintain a better content of legumes and a better quality of herbage, (3) improvement of rotation or meadow-type pasture by more liberal treatment when seeding and the seeding of better adapted plants, and (4) balancing the pasture program by providing adequate rotation or special pasture to carry the livestock load during July and August or at other times when the general pasture is insufficient.

How Legumes Spread

In the Central States red clover, alfalfa, sweetclover, and soybeans are the outstanding legumes, and seed supplies of both alfalfa and red clover of new varieties are becoming available. There are two new strains of red clover. One is the Cumberland strain, developed from a composite of disease-resistant clovers from Kentucky, Tennessee, and Virginia, valuable also in the southern parts of Ohio, Indiana, Illinois, and Missouri. The other new strain, Midland, is developed from a composite of foundation seed from Ohio, Indiana, Illinois, and Iowa. By 1942 there should be abundant supplies of both Cum-

berland and Midland for use in the areas where they are best adapted.

A problem in alfalfa production for a number of years has been to procure a strain that would be resistant to alfalfa wilt, which has become more and more serious in the Central States and in many of the Western States. The Bureau of Plant Industry and the States cooperating have developed a new strain known as A-136, which has been shown to be immune from wilt in all areas where it has been tested. By 1943 there should be sufficient supplies of this seed for general distribution, especially in the dairy regions of the Central States.

Sweetclover is used both for forage and for soil building. The most serious problem in connection with its use is that it is almost impossible to procure supplies of pure white sweetclover, which is the most desirable variety for use in the Central States. In a few areas seed of the pure white is still available, and efforts are being made to improve the supplies.

Soybean production is becoming more and more commercial, especially in the Central States, where extension agents are paying increased attention to the crop.

Dry-Land Ranges Improved

In the western half of the United States the forage production program has consisted largely of developing the production of dry-land range grasses, especially in the Northern Great Plains region. Crested wheatgrass is probably the outstanding dry-land range grass, and the production of seed supplies has become sufficient to bring seed prices within the reach of the average farmer who desires to improve his range feeding. The largest amount of seed is produced in North Dakota, Montana, Washington, and Oregon and is not only used locally but also is shipped to other States, especially in the area where the nights are cool, as this grass seems to do best in such regions. A range grass for the southern part of the Western States is still needed, as nothing better has been found than blue grama grass and some of the older grasses that have been in the region for many years. A good investigational program, however, is being carried on in the Southern Great Plains region, in cooperation with State experiment stations, Bureau of Plant Industry, and Soil Conservation Service, and it is hoped that some range grasses suitable for this region will soon be available.

Hybrid Corn Takes the Corn Belt

In corn production there is nothing comparable to the progress in the development of hybrid corn during the past 10 years. The use of hybrid corn passed out of the experimental stage in 1940 when a number of States reported from 60 to 88 percent of their corn acreage planted to hybrids. Many States indicated that practically no open-pollinated corn was planted in 1941, as supplies of hybrid seed were sufficient to meet all their demands.

State experiment stations and the Federal Bureau of Plant Industry have been leading the program in the investigational phases of this work and in the production of small quantities of inbreds for the use of growers in producing hybrid seed. The hybrid seed production has been carried on in most States as a joint program of farmer-producers through the seed-improvement association and the Exten-

sion Service, and the extension agronomists have been very active, especially in Ohio, Indiana, Illinois, Missouri, Iowa, Nebraska, Kansas, Michigan, Wisconsin, and Minnesota. This work probably means more in dollars and cents to the farmers of the Corn Belt than does any other phase of extension agronomy work that has ever been carried on. Most States report that their hybrids are outyielding open-pollinated corn by 15 to 25 percent.

The Extension Service and the experiment station have been actively engaged in field trials and demonstrations to bring to the attention of farmers the necessity of selecting hybrids that are adapted to their region and have helped them to locate sources of supplies of such seed.

Considerable progress has been made in the improvement of small grains, notably in the development of new varieties of oats in the Central States, especially oats resistant to smuts and rusts, and new varieties in the Western States. These programs have not been so spectacular as the hybrid corn program, but they are just as important to the farmer. Much progress has been made in a number of States, especially Iowa, Wisconsin, Minnesota, North Dakota, Utah, Oregon, and California, in the development and distribution of seed supplies of improved wheat and oats.

Weed-Control Work Active

As farming is developed in any region, weed control becomes more and more important, especially in the West Central and Western States, under range conditions and also under irrigation.

This problem is being attacked both through seed improvement where farmers are able to purchase seed free from noxious weeds, and through a control program, where weeds have become established. Where there are large areas of weeds to be controlled, a cultivation program is followed. Chemicals are used for eradication in small areas where weeds are just becoming established.

Some of the most active weed-control programs are in operation in Idaho, Oregon, Washington, Utah, Montana, North Dakota, South Dakota, Nebraska, and Kansas. Several States have passed laws that make it possible to organize weed control districts and obtain funds to develop an organized program in areas where weeds are so widespread that their control is more than an individual farmer's problem. In Indiana 43,000 farmers cooperated in spraying their fields to control bindweed.

Insect Pests and Plant Diseases Fought

The loss occasioned by insects in the United States is estimated at 2 billion dollars a year, which amounts to a tax of \$15 a head for each man, woman, and child. This loss would be much greater were it not for the control measures applied. For example, \$20 was saved for each dollar spent in the 2-million-dollar grasshopper control program carried on in 21 States in 1940.

To help the public prevent the enormous loss from insects there are several hundred research entomologists working on better control measures and 33 extension specialists in entomology who work through administrative channels, subject-matter specialists in other lines, county agents, and commercial agencies to diffuse to the public

the findings of research. The extension entomology specialists having access to many unpublished results of research keep the public informed on the most recent control measures. They help farmers to understand the habits of many insect pests so that they may adjust their farm operations and living conditions to prevent the occurrence of destructive populations of insects, or afford protection through the application of chemical control measures. The specialists are often able to save farmers much money by advising against spraying or dusting when the potential insect population does not warrant such operations, or by making recommended insecticides available to the public through manufacturers and distributors. In this connection many conferences have been held with druggists, seed houses, and lumber and hardware dealers.

In 1941 there was one of the worst boll-weevil outbreaks that had occurred for many years, and the Extension Service warned farmers of the potential cotton destruction. Many families will be able to eat and sleep and be clothed from the money earned by their own efforts because of the extension program in boll weevil control.

In 11 States, 645,300 people produced gardens in 1941 under special provisions in the AAA program. This number, with several million other home gardeners, were served with information on protecting their gardens from insect depredations.

Practically all States grow fruit, and nowhere can it be grown profitably without the use of control measures for insect pests. Where fruit is grown in small commercial or home orchards, spray service is handled in a way commensurate with the value of the crop. In States where fruit is grown extensively, highly specialized spray service has been developed in which telephone, telegraph, and radio are used to supplement mails in providing growers with the most timely information. One day's delay in spraying may mean the difference between profit and loss, hence the need for such service. A survey in one State which produced more than 9 million bushels of apples in 1940 revealed that orchards sprayed according to the spray service recommendations produced 97 percent clean fruit, whereas unsprayed trees produced 44 percent clean fruit.

In many States the specialists assist with county planning programs. They advise with county workers on a long-time program for insect control, taking into account agronomic practices that do not require extra outlay of cash for insecticides and applicators. In cooperation with other specialists, bureaus, and agencies, adjustments are being made in strip cropping, use of diverted lands, kinds of rotation, and use of substitute crops. Specialists also work with farmers and others on the protection from insect damage of grain stored under the ever-normal-granary program.

Commission firms are deducting from \$1 to \$5 per head of cattle because of grubs in the back. An extension campaign is being waged to show farmers how to prevent such loss. The cost of treatment is less than 50 cents a head. Oklahoma reports 14,000 head treated in 1941.

The Extension Service gave farmers assistance in controlling thousands of other insect pests, including beetles, cutworms, flea-

hoppers, Hessian flies, houseflies, leafhoppers, lice on plants and animals, mosquitoes, other fruit insects, pea aphids, pea weevils, scale insects, stored-grain insects, termites, tobacco insects, and wireworms.

The Extension Service, with its plant pathologists, horticulturists, agronomists, and county agents, cooperated with agricultural services of railways, fertilizer companies, and the press in carrying on a campaign to control bacterial ring rot in potatoes.

In Maine, meetings were held in all important potato communities to discuss potato ring rot. Bulletins, leaflets, posters, circular letters, press articles, and radio releases were used to further the program among the people of the State. Representatives of cooperating organizations made bin surveys, and solicited the cooperation of the owners to take care of infected potatoes. As a result of the year's ring rot control campaign, the percentage of seed potatoes rejected because of ring rot dropped materially.

Twenty-three potato clinics and 23 additional meetings were held in Minnesota's potato sections during the year. Farmers were asked to bring samples of their seed potatoes for examination. A total of 3,300 farmers took part in the clinics and meetings.

Cereal seed has long been treated for smut prevention. During recent years it has been found to be an aid in the control of other grain diseases, and its use has been extended to other crops. Treatment of cottonseed for improved stands is relatively new, having started about 1935, but it has taken hold rapidly. In Virginia, North Carolina, South Carolina, and Georgia it may already be said to be an established practice. In South Carolina county agents estimated that 82,092 farmers planted 827,196 acres of cotton with treated seed in 1940.

Rural Family Well-Being Promoted

Rural families that have the ability, the health, and the will to maintain adequate supplies of food and fiber for themselves and the Nation are the first requirement of a National Defense Program—healthy, happy people, constructively employing, conserving, developing, and improving their resources. Ability, health, and the will to produce are closely related to farm incomes and to the actual working of democratic principles.

Homes in which people can maintain good health are most important in a defense program, but it is also important that people have homes that are worth defending. Anything that makes a home more comfortable, more convenient, or more satisfying to a family, strengthens morale and determination to preserve that home.

Extension built its home demonstration program for the report period on these principles. Representatives assisted farm people in organizing their efforts in such a way as to approach the better farm living program in a realistic way, keeping in mind national and international unrest and pending changes in the lives of many people. In fact, all extension study for rural women participating in a Nation-wide home demonstration program points toward better health and well-being of the family, whether in the field of nutrition,

clothing, home management, home furnishings, or child care and development.

Although the future is unpredictable, farm people have been kept alert to the possibility of changes in the economic situation following the present conflict. A better informed population, fortified with a strong farm and home program, will undoubtedly be better able to withstand the shock that is expected.

Housing the Self-Help Way

Rural housing is an important part of a comprehensive program for the betterment of farming and rural life. The poorest housing in the United States exists on farms, and two-thirds of all farm homes are without conveniences that are common in practically all urban homes. Housing is also an important aspect of the national defense program because of its bearing on necessary shifts in population and on national morale and health. In housing, as in other aspects of its educational work, the Extension Service coordinates its program with that of other Government bureaus and agencies that have functions relating to rural housing.

Extension workers reported for the year 1940 the following accomplishments relating to housing to which they devoted increasing educational effort. Figures include results in cooperation with other agencies such as the Rural Electrification Administration and the Farm Security Administration, as well as the results of the general use of Extension Service aid by farm people on home building problems.

274,330 buildings constructed, remodeled, repaired, or painted following recommendations.

218,412 farms electrified with help of extension agents.

10,483 dwellings constructed according to plans furnished.

24,359 dwellings remodeled according to plans furnished.

178,268 families following recommendations in improving room arrangement.

173,596 families improving treatment of walls, woodwork, and floors.

188,404 families applying recommended principles of color and design in improving appearance of rooms.

148,308 homes following recommendations on planting of shrubbery and trees.

Establishment of Army, Navy, and Air Corps training and practice grounds, and of industries for defense, made it necessary for thousands of farm families to find new homes. Extension workers cooperated with other agencies in preparing for such shifts and helped relieve those affected by defense moves.

The Extension Service of Missouri, for instance, cooperated in a survey of 801 farms to determine rural-housing conditions. From the data obtained the Government was able to meet needs that arose out of defense development.

The survey helped to determine what practical means could be devised in the construction and location of new houses for defense workers, so that after the present emergency is over the Government could recover a maximum part of the cost and at the same time permanently improve the housing standards in adjacent rural areas.

A similar survey was made in the 12 counties of the Coosa Valley Defense Area of northeastern Alabama. In rural areas the survey workers determined housing conditions on farms, farm labor, and social and economic conditions of farm families. They also made family surveys which covered composition of family, color, tenure,

status, mobility, social participation, acreage of farm, cropland acreage, normal yields, livestock, live-at-home program, condition of dwelling, and presence of home conveniences. They determined the number interested in nonfarm employment, also whether the farm unit was large enough to support a family and whether it was located on or close to an all-weather road leading to the plant. If these requirements were met, the owner of the land was visited and asked whether he would be interested in leasing an acre or two of land to the Federal Government as a site for a defense house to be occupied by a family, the head of which would be employed in one of the defense plants during the emergency, after which the defense house would be available for purchase by the owner of the land and the Administrator of the Federal Works Agency.

This survey covered 24,723 farm families, of whom 16,429 were found to be living in inadequate houses. Of this number 3,252 are on farms which are recommended as sites for Government defense houses. More than 22,000 members of the families surveyed indicated an interest in nonfarm employment.

Assisting in the survey were 1,748 farm people, who were members of their community land-use planning committees. An undetermined number of others cooperated in making the survey, devoting their time freely and in many cases doing considerable travel at their own expense.

Extension furnished technical knowledge and building plans that led to the construction of thousands of inexpensive farm homes and the remodeling of numerous old dwellings. Many of the programs included use of farm-grown or native timber.

Aid Given in Home Improvement

Under home projects, rural women eliminated practices and equipment that caused fatigue; removed many causes of home accidents; installed equipment with adequate working heights; studied and solved problems pertaining to heating, lighting, and ventilation; installed water supplies; utilized unused spaces within the home for rooms and storage; adopted better cellar management practices; rearranged working and recreation centers and sleeping quarters for the greater convenience and comfort of all members of the household.

Although extension agents sometimes recommend the purchase of new house furnishings, the greater part of the extension program deals with the arrangement of furnishings already in the home; refinishing, reupholstering, and repairing old furniture; and making, from materials at hand, useful and beautiful articles such as table and cushion covers, slip covers, curtains, and floor coverings. When new furnishings are purchased, rural women turn to home agents for advice in buying them. As a result, 259,591 families improved their selection of household furnishings, and 200,325 families followed recommendations in repairing, remodeling, and refinishing furniture. Rural women who participated in this program in 1940 indicated they saved \$3,314,708 in making the improvements by following extension recommendations.

Home demonstration agents in New York State conducted 221 family conferences with 2,142 women. Each meeting was held in a kitchen, laundry, cellar, or any other area of the home where the

family recognized management problems existed. Members of the family, neighbors, and friends met to discuss ways and means of solving these problems with materials on hand or with minimum purchases.

The Nation-wide project resulted in the improvement for convenience of 127,075 kitchens. Reports from homemakers and leaders indicate that the recognition of irritating problems of kitchen improvement and a positive approach to a solution often result in changed attitudes toward homemaking that are important to the entire family.

In California, 3,700 families participated in the State's home-furnishing project. They reupholstered 800 chairs and refinished 5,000 pieces of furniture.

Local home leaders in North Dakota were given training in inexpensive repairs for houses, such as puttying windows, replacing glass, repairing roofs, porches, steps, and screens. Stress was placed on how to apply weather stripping, construct simple storage facilities, and make fly traps. The leaders also attended demonstrations of installation of practical farm water systems, sewage-disposal systems, and electrical equipment.

The extension service of Virginia constructed and demonstrated a fully equipped three-room unit as a guide for young couples, many of whom had not had experience in purchasing furniture and fixtures.

Extension agents also assisted landowners in providing attractive and convenient homes for hired help. Such homes, along with machinery and generous supplies of milk, eggs, fruit, vegetables, and meats, are inducements to laborers to remain on the farm instead of going to industrial centers.

A forward step in low-cost housing for rural Negroes was taken in Alabama where Negro extension workers and members of the Tuskegee faculty organized a permanent folk college. The first unit of instruction was for the training of rural carpenters and builders. Negro men with some knowledge of building were given additional training in the construction of low-cost houses, and scholarships were set up for potential carpenters. A sawmill was placed at the disposal of the folk college, and the first construction included 4-H Club camp cottages, built according to plans for low-cost rural houses.

In house furnishing, the most successful and popular projects among 4-H Club girls were building and equipping clothes closets; painting floors, woodwork, and furniture; papering walls; refinishing sound old furniture and remodeling less desirable types; selecting fabrics; and making curtains and bedspreads.

Extension agents encourage the older and more capable 4-H Club girls to undertake a long-time program of home improvement. This involves making a complete plan, taking into account the advice of leaders and parents, then progressing on it as fast as circumstances allow.

An alarming number of accidents occur within rural homes each year. For that reason the Extension Service sponsors home-safety

projects designed to reduce household hazards and to change dangerous practices.

News items, surveys, prepared articles, and the rather widespread use of a home safety exhibit were some of the methods used by Illinois to further the home safety project in that State. In one county a farm home safety survey, involving 1,255 homes, revealed 152 home accidents for the year; 303 families had fire extinguishers in their houses and 117 had them in their cars. The majority of home accidents were attributed to falls downstairs, slippery floors, objects left out of place, and stepladders improperly put up. Burns came next.

In San Juan and Okanogan Counties in Washington leaders were trained to carry on the work on safety in the home by the home demonstration agent through the cooperation of the Red Cross. As a result, 219 families reported decreasing accident hazards.

During the year 2,800 families in California made changes in their homes to prevent accidents.

Farmers Helped To Get Electricity

Electricity came to thousands of farms for the first time during 1940. Cooperative efforts of the Extension Service and the Rural Electrification Administration greatly stimulated interest in electrical lines, wiring of rural homesteads, and installation and care of various household and farm appliances and equipment. Numerous demonstrations were given, news items and letters written, radio talks made, and bulletins distributed to answer inquiries from rural people.

In the 48 States, Hawaii, Alaska, and Puerto Rico, 336,703 farmers installed electrification units, 158,549 installed lighting systems, and 195,041 brought appliances and machines into their homes.

An example of the rapid growth of interest in rural electrification may be found in Ohio, where about 55 percent of the farms are now receiving electricity from high-tension lines. The growth of rural ownership of electrical appliances between 1938 and 1940 is shown in table 1, compiled from a partial reply to a questionnaire sent to 3,800 members of an REA unit in Ohio.

TABLE 1.—Growth of rural ownership of electrical appliances among 3,800 members of an REA unit in Ohio, 1938-40

Appliance	1938	1939	1940
	<i>Number</i>	<i>Number</i>	<i>Number</i>
Refrigerator.....	119	870	1,356
Range.....	89	223	354
Water system.....	153	551	722
Roaster.....			103
Cream separator.....			310

To meet the problems arising from increased purchases, the Extension Service organized "everyday electricity" projects. These were designed to aid in the adjustment of family living expenditures to make best use of electricity from the standpoint of both the individual family and of line maintenance; selection of the most suitable equipment; proper use of equipment for safety, economy, time and energy saving, and other possible satisfactions; care of equipment to maintain satisfactory service.

Help Given in Emergencies

Extension stands ready to aid in any emergency. For example, extension workers of southwest Louisiana immediately went into action to help rehabilitate 13,600 farm families who were victims of the flood in 1940 that inundated 8 parishes. Refugee camps were established at strategic points to take care of some 6,300 families made homeless and destitute. After the flood subsided, home-demonstration agents prepared quantity recipes for the use of foodstuffs distributed by the Surplus Marketing Administration. They supervised refugee kitchens and outlined plans for planting gardens and reconditioning homes and furniture.

In the rehabilitation program, agricultural district agents supervised the work of county agents in the distribution of surplus commodities, and in coordinating the various relief agencies, which included extension forces, members of the Farm Security Administration, and vocational agricultural leaders.

Emphasis on Child Development Increased

During the year there was a steady increase in the spread of extension effort in the field of child development, parent education, and family life. Old ways of living are breaking down under the complex difficulties and tenseness of modern conditions, and rural people are asking for help.

Activities in this field have been centered on the adjustments needed in the farm home to help children and parents achieve the best physical and mental health. In many counties both parents studied physical growth, personality building, habit training, and the fundamentals of successful marriage and family relationships. As a result they are finding new joys in their own relationships, in their children, and in their home and community life. Emphasis was placed on planning together for the best possible use of all their resources to improve their family life. This democratic pattern of family life offers opportunity for all-round individual development and training in functioning citizenship.

Fifteen States employed 19 full-time specialists, and 6 States designated part-time specialists to carry on this work. In States without specialists material on child development and family life was integrated into other projects.

Oregon extension agents held family-living conferences to stimulate interest in family relationships and to present information that would be pertinent, practical, and helpful to parents. One of the chief aims was to help people become more analytical and objective toward their own families and to arouse their interest in working toward family goals.

After training meetings had been held for leaders of preschool play groups in New Jersey, 6 groups in 1 county met 80 times during the year to pool their thoughts and get further information on child-development problems.

Through 481 organized better-babies clubs in Arkansas, 7,548 preschool children from 5,419 families were given special care. In 29 counties 2,450 children were examined in 173 well-baby clinics. Attending doctors reported that members of the better-babies clubs have much better physical development than those not enrolled.

4-H Club girls in one Texas county gave demonstrations on How Do I Fit Into the Family Group?, What Is a Home and What Is Our Place in Our Home?, and How Can and What Can We Do To Improve Our Home?

Mattresses for Nearly 3 Million Homes

Comfort was added to almost 3 million rural homes in 1940-41 when that many mattresses were made from surplus cotton by low-income families. More than 12,000 communities, largely in the South, established mattress-making centers where extension workers, with materials supplied through the AAA and the SMA, trained volunteer leaders and assisted farm families in mattress construction.

The project went a long way in dispelling the frequently cited contradiction in our present economy, that people who produce cotton often lack the means to sleep on it. A need for better bedding among the low-income groups was evident. This need was emphasized by data gathered by the Bureau of Home Economics which showed that mattresses were bought by only 4 farm families out of every 100 with incomes of \$500 or less, during 1935-36, but by 9 out of every 100 families with an income of \$1,500 to \$2,000. The cotton-mattress made it possible for farm families having an income in 1939 of not more than \$400 to make their own mattresses.

Besides filling a great need in providing better beds, the mattress-making program taught homemaking practices that farm families can use again and again. It resulted in thousands of other families buying mattresses or making them without further help from the Government.

Clothing Program Stresses Economy

Rural family well-being is closely linked with clothing. "Clothes make the man" in rural communities as well as in urban centers, even though the rural wardrobe is often composed of fewer and older garments because of limited budgets.

Inasmuch as the farm dollar has to be stretched to cover the many demands on it, the Extension Service has developed skills and techniques which aid materially in the stretching process when it comes to supplying clothes for the farm family.

Major clothing activities with thousands of homemakers during the period covered by this report included the taking of clothing inventories to determine needs of the family; remodeling of coats, dresses, hats, suits; making over of adult clothing for children; making new garments; wise use of clothing resources through good buying practices; selection of apparel becoming to the individual; and the study of new synthetic materials that are substituting more and more for silk, wool, and linen.

Demonstrations were given from Maine to California on safe methods of dry cleaning and pressing at home so that this expense could be saved to augment the clothing budget. Extension agents helped farm people in repairing 22,000 old sewing machines.

Extension assisted 315,955 adult rural women and 325,869 juniors in the construction of clothing and 254,763 women and 99,989 juniors in renovation and remodeling. The extension clothing program is estimated to have brought rural families savings of nearly 5 million

dollars in 1940. Savings in dollars and cents do not begin to represent the total value of these projects. Of greater value was the effect well-selected, well-tailored, well-appearing wearing apparel had on the farm women and girls. They were given more confidence in their ability to take part in community and other activities so necessary to the welfare of rural community life.

Rural Women Learn Crafts

Interest in handicrafts is widespread and is increasing. Numerous home-made articles of use and beauty were produced at little or no expense during the year in thousands of rural homes. The making of articles served as an emotional and recreational outlet and at the same time provided home furnishings that the family budget, in most cases, would not have permitted otherwise.

Usually, the handicraft work is sponsored for the benefit of the individual and not for the monetary returns. However, if the work is built slowly and cautiously, a sufficient degree of skill and craftsmanship may emerge to warrant market outlets later.

In New York State 8,360 families followed recommendations regarding handicrafts, including braided rugs, weaving, chair seating, and small room accessories. Traveling craft exhibits were organized and sent around the State. Instruction on training of leaders in craft work was given by an extension specialist in any county that asked for such assistance.

Home Grounds Improved

The desire for general improvement of farm home and grounds was manifest as thousands of rural men, women, and children participated in improvement programs.

On a national basis this program provided for farmstead clean-up, painting, staining, and other external repairs; constructing walks and drives; grading and sodding the yard; planting of shrubbery in the yard and around the home; and cutting beds for home propagation and flower gardens. Community improvements included painting and landscaping of schools and churches, cemetery improvement, development of community parks and recreation centers, razing of old buildings, repair and planting of grounds around stores and filling stations, removal of signs, debris, and dead and diseased trees from farms and roadsides, and the landscaping of roadsides. Planting of available native shrubs was emphasized.

An excerpt from North Carolina's report indicates the interest taken by rural people in the landscape projects sponsored by the Extension Service:

Reports given by leaders would cause a glow of pride and satisfaction to any person interested in the progress of the rural home. Green lawns with curving driveways are replacing bare grounds kept clean with a dogwood brush broom, and the working areas of the farmstead are being screened by hedges or fences that beautify the whole place and make it a country home in the full meaning of the term.

Participants in a 5-year community demonstration program in Arkansas reported in 1940 that they had improved 4,143 public buildings and grounds, planted 11,067 ornamental shrubs and 9,150 shade trees, and beautified 487,487 miles of roadside. The better-

homes campaign resulted in approximately 75,000 Arkansas homes being made more comfortable and attractive; 12,046 homes were painted, 21,428 houses screened, and 8,416 porches built or repaired. Home-ground beautification included construction of 15,221 walks and drives, establishment of 2,762 outdoor living rooms, and sodding of 15,150 lawns. The appearance of 982 communities was greatly improved, and the grounds of 774 schools were sodded and landscaped by community groups. Other community activities included the establishment of 185 community playgrounds and 109 parks.

Healthy Rural Families a Major Goal

Extension health programs during the year included the hygiene of living, which touched phases of life that affect health and personality from infancy to old age, as well as family relationships, discipline, and community relationships.

Through the cooperation of medical organizations and doctors and nurses, baby, preschool, and school clinics were held throughout the country. Advice was given to pregnant mothers regarding diet, exercise, and proper habits; growing children were made to realize the importance of good posture, properly fitting shoes and other items of clothing. Health habits and sanitation were emphasized among young and old alike, and what to do in emergencies arising in the home was discussed and demonstrated.

As a result, 194,195 persons had physical examinations on recommendation of extension workers or participated in health contests. Reports show that 374,920 individuals improved their health habits and 198,249 improved their posture. Because of the program of sanitation, 55,845 families installed sanitary closets or outhouses, 76,011 families screened buildings to keep out flies, and 132,565 families followed other recommendations to control flies, mosquitoes, and other insects. In all, the health of 410,398 individuals was improved as a result of extension health and sanitation programs.

Recreation projects continued to promote good mental and physical well-being and mental stability of individuals whose home life is already affected by the defense program.

Changing conditions have led to a much stronger emphasis on family recreation, that children may feel secure in spite of changes within the family caused by the departure of older members to military camps or defense plants. Already evident are the increase in community-centered activities for youth of school age and a greater interest in the development of talents and interests that can be enjoyed without equipment, expense, or external aid.

Increasing opportunity has been made for youth and adults to talk over problems, to forget the worries of the day and time in joyous activities, to find lasting satisfaction in music, dramatics, hobbies, and the enjoyment of friends. Numerous volunteer leaders find an outlet for their talents in this field. Several valuable extension bulletins planned to help them were printed during the year. Good examples are those issued by Ohio, Massachusetts, and New York.

Only a few communities in New York State have not received assistance from this program since 1920. During 1940 alone, 2,663 organized leaders of all sections of the State attended training

schools to prepare themselves to carry on community activity programs in their localities.

Over 1,000 plays and pageants were produced by rural Arkansas groups. Emphasis shifted from the county contests to local community plays or to county-wide cooperative production in which representative acts from many communities were assembled into a county-wide production.

More than 60,000 families in Mississippi participated in recreation for health and satisfaction in living. Folk dancing, community singing, music appreciation, home reading, and dramatics for home and community were featured.

Idaho held 6 vacation camps for rural wives and mothers under the direction of the State home demonstration leader. Attendance averaged from 200 to 1,000. Programs for several days were centered on family and home life, matters of community and State interest, and national and international considerations. Outstanding speakers discussed topics of current interest.

Toward Greater Economic Security

One of the most cherished goals toward which the vast majority of farm families work is economic security. To own their homes, their land, their livestock, and be able to pay their obligations, educate their children, and furnish them with the necessities of life with a few luxuries thrown in, is the hope of farm families. The Extension Service recognizes the importance of these urges.

Agricultural Planning Shows Results

Of great significance in this respect is the agricultural planning being carried on in cooperation with the Bureau of Agricultural Economics. In this comparatively new program the same general principles are observed as have been followed in extension work for many years. Community, county, and State committees of farm men and women are organized for a study of local land use situations and land use needs, and possible adjustments. They make recommendations, in cooperation with representatives of the State agricultural college and the Department of Agriculture, for correlating and localizing the national programs and making adjustments in land use and types of farming to relieve problem situations. During 1940-41, more than 10,000 such committees were functioning. Planning involves significant adjustments for the individual as well as for the public.

The Director of Extension is chairman of the State agricultural planning committee, which includes in its membership the State representative of each of the national programs carried on by the Department of Agriculture. The county agent usually serves as secretary to the county agricultural planning committees, acts as leader in organizing the committees, and assists in mapping the land use areas of the county through community committees. At the State level, the State extension project leader is usually a technical man who, in cooperation with the State representative of the BAE and the representative of the State experiment station, brings to the farmers' committees technical information necessary in land use studies and

in the development of recommendations for adjustment in land use determined by the committees.

Agricultural planning is thus a means by which the county planning committee and the representative agencies of the State and Federal Governments, with important economic and technical facts before them, can agree on a coordinated farm policy for the county. They can arrive at decisions which lead to a sensible adaptation of public action programs to varying local conditions. Thus the thinking of farm people becomes a regular part of the functioning of action programs and helps to bring about the adjustments that will contribute the most to the immediate and long-time interests of rural people.

Extension workers report that this activity has been responsible for more deliberative and sound thinking by farm people on common problems than any other single phase of work. From the agricultural planning committees have come such conclusions as that farm people must follow the live-at-home program as the first line of defense, that some shifts should be made to crops having domestic market demands and possibilities, that domestic and local markets should be developed, and that local natural resources should be put to use, providing industrial employment.

In community, county, and State agricultural planning committees, farmers are actually taking inventory of the resources at their command and going even further by classifying these resources as to best uses for the long-time good.

Counties are carrying on an active program of surveys, farm consolidations, farm-forestry work, fertilizer tests and demonstrations, and a general plan of tours for illustrating results obtained by approved methods.

This activity in connection with agricultural planning renders the farms and farmers capable of meeting demands of national defense with the least possible delay and brings about the most efficient production with the least permanent damage to soil.

The case of the Radford, Va., powder plant is a good example of a planning committee at work. Through the cooperation of the Extension Service, the Bureau of Agricultural Economics, the agricultural experiment station, and Farm Security Administration, four counties were organized into communities and neighborhoods with appropriate committees.

A family-by-family analysis was made of housing and availability of labor, as well as a rough index of quality of farm land being operated.

In all, 6,928 individual schedules were filled out in a survey which determined the kind of roads, distance from plants, the number of members of a family working in industry, the number who applied for work in the powder plant, the other family members who might be available for work, adequacy of housing structures now occupied, interest in Government-built houses, the number of crop acres in the existing farm unit, and the average yield obtained. Consideration was also given to what the situation might be after the emergency, such as how many governmentally constructed homes could be absorbed later; present housing facilities; present status of public utilities, roads, schools, fire and police protection, and sewage systems.

Although but a short time was allowed for the survey, cooperating agencies proved that existing machinery could be put into action almost overnight among planning groups. In connection with the establishment of the antiaircraft training and firing base in Liberty, Long, and Bryan Counties, Ga., the Extension Service, Farm Security Administration, and other agencies assisted in the relocation and reestablishment of some 600 farm families which were displaced from an area of 200,000 acres. Similar examples are on record in many other areas.

Surveys were made in several States to determine the manpower available on farms. Such information is important in a national defense program, because it furnishes data on manpower that could be utilized in carrying on agricultural pursuits or for other national needs. Agricultural planning committees in most States took up the problem of farm labor.

Kansas Extension Service, in cooperation with the A. A. A., unified effort to bring the most troublesome portion of the State's dust bowl under control. An agricultural conservation program was developed through the aid of county agricultural planning committees. No payment was made for diversion, the entire grant to farmers being based upon the extent to which soil-conserving or soil-building practices were performed. A total of 2,355 farmers, committeemen, and leaders participated in the 64 meetings held. Ten counties adopted the plan and placed a major emphasis on the stabilizing influences of an adequate sorghum acreage.

Following a planning program in Caswell County, N. C., year-round gardens increased more than 50 percent. The total number of gardens was more than 2,000, the largest number ever known in the county. The original agricultural planning committee set up 47 goals, and within the year that number was increased 100 percent.

At 308 meetings held in Maine with 3,825 farm women in 32 communities, one of the most urgent needs mentioned was additional medical service. Lists showing medical needs were supplied to 35 doctors and nurses.

Farmers Informed of Outlook

Informing farm people about the greatly changed economic situations facing them, and assisting them in making necessary changes in their farm and home practices was a major job of extension agents during the year. Topics given emphasis included loss of foreign markets, need for crop adjustment, conditions found in the county, State, Nation, and in foreign countries which affect markets and trade in the United States; what to expect in market demands; how home markets can be expanded; the problem of surpluses; and what the United States Government is doing to cope with perplexing situations affecting the economic welfare of all concerned.

Farmers were also particularly acquainted with conditions in South America, such as their loss of markets, resulting surpluses of meats, grains, and other products, and the importance of help from the United States in disposing of these surpluses.

An example of the use of outlook information is found in Mississippi, which had 1,200 community organizations last year with a

membership of 60,000 who contributed to preparedness by discussion of national strength, morale, patriotism, health, food and feed supplies, land use, conservation, and other economic and social problems affecting the general welfare of the people.

Iowa sent a farm outlook circular to 200,000 farmers. This circular pointed the important facts in the economic situation and their implications to farmers. A discussion outline for use of county agents, agricultural teachers, and other agricultural leaders was made available. A set of 6 charts was supplied to county agents and agricultural teachers.

Educational meetings arranged cooperatively with the State A. A. A. committee in every community throughout North Dakota kept farm residents informed on economic problems.

Emphasis by extension agents on the seriousness of the world situation, its pressure on American agriculture, and the need for home food production had much to do with Arkansas reporting the greatest production of food and feed in the State's history.

Bean growers in Luna County, N. Mex., were able to make about \$40,000 more than during the preceding year because of a survey made at the suggestion of Extension Service on yields of beans planted at various times. They formerly planted beans about May 20. The survey showed that individuals who planted a month or so later had higher yields and did not have so much rust. June 25 was set as the planting date, and as a result growers reaped 200 pounds more per acre.

Forum Groups Discuss Vital Problems

In the present emergency, discussion is a potent means of education for democracy—an effective way of making facts understandable and usable. Organizing meetings and forums of farm people to discuss important problems has always occupied an important place in extension work.

Greatly added emphasis was placed on discussion during the year with the launching of a well-organized program in practically every State to discuss the basic issues facing democracy.

To start the intensified discussion program on a national basis the Secretary of Agriculture asked a group of leading scholars from over the country to a conference to set forth the major issues facing democracy. Then followed a conference with State extension leaders and regional meetings to discuss the issues with field extension workers.

A third of our population lives in rural areas. They usually have served as a strong stabilizing influence in national affairs. They can act as a stabilizing force in the future if their decisions reflect an understanding of the general welfare—of how the situation affecting agriculture will react on all the people.

Farm people in 1940-41 more than ever before seemed to feel the need for more factual information about broad national problems affecting them and for more frequent opportunities to discuss them with their fellows. Extension workers helped them get the information they wanted, helped them learn the techniques of a skillful discussion leader, helped them organize for regular discussion, and demonstrated to them the possibilities in discussion.

Some of the major subjects for the discussion were agricultural trends, price levels, farm costs, farm-labor problems, marketing problems, trends in consumer behavior, wider use of credit, the American way of life, and the meaning of true democracy. Discussion group meetings in thousands of communities throughout the year resulted in making farm people more alert to changing conditions and better prepared to meet any eventuality arising after this emergency.

For example, the well-rounded extension program enjoyed by Brookings County, S. Dak., farm people is attributed largely to the work of the agricultural discussion forum. Through this organization the county livestock, crops, and forestry improvement associations were formed. Members, representing nearly every township in the county, are always considered in preparing the program of work.

Agricultural forums on topics such as The Effect of the War on Agriculture, and Money and Prices, supplanted to a considerable extent the agricultural economics schools in Illinois. Both rural and urban people attended. The farm adviser selected a panel of four to six men and women to lead the discussion. Usually, these were two or three well-informed farmers, a businessman, a professional man, and the home adviser. The farm adviser supplied this panel with factual material prepared by the department of agricultural economics. So popular were these forums that the Extension Service was able to grant only a small percentage of requests for them.

Farmers Receive Marketing Aid

Advantageous and economical marketing of farm produce and livestock presents numerous perplexing problems to those who supply the food and feed for the Nation. Realizing that efficient marketing practices are essential to economic security of the farm family, the Extension Service has helped set up in almost every State cooperative agreements to aid in moving products to market.

Farmers in Massachusetts were assisted in marketing their eggs through auctions and private sales to chain stores, large grocers, and others that buy in volume. They were also aided in marketing vegetable crops in which burdensome surpluses were expected, including strawberries, spring lettuce, carrots, string beans, cabbage, beets, and tomatoes.

Through press and radio the public was kept informed as to current supplies of fresh vegetables to prevent unusually large supplies or gluts from developing in the wholesale and jobbing markets.

Massachusetts prepared 36 charts for county agents to use in farm meetings to show labor distribution by 10-day periods for growing each vegetable crop.

One farmers' market in Buffalo, N. Y., showed a growth from 32,585 loads of produce in 1929, when established, to 45,000 loads in 1939. During the period July 1939 to June 1940 this market sold a total of \$2,327,805 worth of produce, of which all but \$752,000 was sold by growers.

More than 40,000 farmers in 125 cooperative elevator associations in Kansas were aided in getting a sound financial basis and to meet changing economic conditions and adjustments resulting from national defense measures. At most elevator meetings, the crop-loan

program was discussed, and many associations made arrangements to handle wheat and corn under Government loans. This not only provided another source of income to the associations but also a means whereby considerable grain reserves could be stored at many local points in the State. Cooperative associations were informed of procedure in using crop insurance assignments and AAA assignments to assist their members to establish credit for needed supplies.

The New Mexico Extension Service initiated the issue of bulletins listing livestock for sale by New Mexico growers. Growers of cattle, sheep, goats, and swine are invited to list with the county agent the feeder and other animals they have for sale and the date delivery can be made. The information is compiled at the State college, and bulletins are then issued to dealers, feeder buyers, and feeders who are interested in New Mexico livestock. The list also includes feeders in nearby States and in the Corn Belt as well.

New Mexico, as well as many other State Extension Services, also issued a marketing news service. As the peak of production for various fruits and vegetables was reached, information was distributed to every county in the State through the county workers and the newspapers concerning market conditions for a particular commodity. People were advised when a fruit or vegetable could be purchased the most economically, where in the State it was scarce and where it was surplus, the amount expected to be produced, how it could be used in the diet, and ways and means to prepare and serve it.

Rapid progress has been made toward a better understanding of the problems of merchandising perishable vegetables at farmers' city markets and through county auctions.

In New York 2,000 growers of commodities such as cabbage, potatoes, lettuce, onions, and beans were aided in expanding home markets for their products.

New methods of transportation and other changes bring marketing problems to the farmer. Farmers' cooperative grain-marketing associations in Illinois which operate within 50 miles of water terminals or shipping points have had to make many readjustments during the past few years. The increased use of motortrucks for long-haul grain shipments added to the problem and raised the costs of marketing grain. Federal loan programs for corn and wheat changed marketing policies to some extent and created new problems, in that many farmers consider their grain-marketing problems solved as soon as they secure a loan. Efficiency in grain marketing has therefore become a real issue for these associations.

Five types of milk-marketing work were carried on by Illinois in 1940: (1) Arrangement for tours of marketing leaders into Wisconsin, (2) promotion of meetings to bring milk marketing information to consumers, (3) presentation of information before Federal hearings in Chicago and St. Louis, (4) advice on milk-marketing legislation and other matters in cooperation with Illinois Milk Producers' Association, and (5) arrangements for a series of general milk-marketing meetings in several counties.

A review of extension activities indicated that 93 percent of the class 1 milk handled in the 23 organized Illinois markets was sold on the so-called "butter plus" or supply-and-demand basis. This is

considered to be a distinct accomplishment as it tends to promote good will and harmony between producer and distributor groups.

Part-time farming is a problem of first importance in New Hampshire, where nearly half of the farmers obtain some income from sources outside of the farm. In general, the recommendations of extension workers have been to develop a program of more home-produced food and feed on these farms. Home accounts summarized by extension economists fit into this picture.

The extension economists in New York conduct correspondence courses on introduction to agriculture, elementary farm management, advanced farm management, milk marketing, and agricultural prices. During the year these courses reached 875 persons, most of whom probably would not have been reached through the Department's other extension activities.

In connection with the annual State-wide farm inventory and credit statement campaign in New York State, extension specialists prepared special problems on farm inventories, credit statement for commercial banks, and applications to production credit associations, for use in agricultural high-school teaching work. Special teachers' outlines and suggestions for procedure in connection with these problems were also prepared. They were used by 9,000 high school students and other rural youth.

Studies were made of cooperatives in many States by extension economists and extension specialists, who made recommendations for improving business. After studying one milk cooperative, a New York extension economist found that no capital was provided by the members. All was borrowed, and the borrowings exceeded the assets by several thousand dollars. Most of the money was borrowed on the endorsement of the directors. The cooperative was selling most of its milk at wholesale but was operating a small retail business. This had lost money consistently.

The recommendations were to set up a definite plan for members to acquire capital, explain the plan, and put it into operation. The directors made a capital deduction of 5 cents per hundredweight on all milk. During the subsequent year, this deduction amounted to almost \$12,000, which, with other funds, paid off the bank loans.

Some of the most successful businesses in Texas are the 840 cooperatives owned and controlled by farmers. About 400 of these are gin associations which average more than \$2 saving per bale ginned for their members. This amounts to about \$2,000,000 annual savings. Cooperative gins account for about 12 percent of the total number of gins in the State, and it is estimated that they gin more than 30 percent of the total crop.

Tenant and Sharecropper Relations Improve

Approximately a million tenant and sharecropper families move each year. This condition results in low income, poor land, deficient diet, poor health, poor housing, low standards of education, inefficient farming methods, and soil erosion. Few become a part of the communities in which they live for such short periods and under uncertain conditions.

Extension agents helped many such farmers to get anchored on the land with a reasonable chance to stay and to work out their own salvation with the help of such aid and guidance as is available to them.

This was accomplished by pooling the interests and experiences of Extension Service, Farm Security Administration, Farm Credit Administration, and other agencies; organizing county tenure improvement committees or subcommittees; arranging for county and community landlord-tenant conferences; giving direct assistance to landlords and tenants in filling out leases; establishing plantation improvement demonstrations; presenting public awards or recognitions for improved tenure systems or landlord-tenant relations; making a general distribution of improved lease forms and related materials; holding public discussions of tenure problems and leasing arrangements in meetings of farm women and 4-H Club members and of other groups. In certain States outstanding instances of good landlord-tenant relations were studied and brought to the attention of the general public as examples. In some States a second step was taken to cooperate with representative landlords and tenants in the planning of systematic improvements in their relationships, thus creating good examples or demonstrations of improved tenure arrangements. As a result, thousands of tenants took a new interest in the improvement of their farm practices.

Though extension agents work directly with thousands of tenant families, one of the major ways they help farm tenants is through the landlords, who adopt improved practices and then lead all their tenants to do the same. In every State where tenancy is high, work to encourage more stable lease systems to better tenant-landlord relations is a major extension project.

South Carolina made a survey of 100 farms where the landlord-tenant relationship was observed to be agreeable to both parties. This survey determined how the owners and croppers were working together to mutual advantage for better farm living. The results were published in circular form and used to further the better farm living program.

An owner of a large plantation in North Carolina entertained his Negro croppers at a barbecue. He invited extension specialists to speak about farming in that area and distributed cash prizes for farm work well done. This is not an isolated incident, because landlords are finding that security in farming also depends on both cropper and landowner being satisfied and safe in their business.

Unit Demonstrations Increase

A marked increase was noted throughout the country in the number of farm unit or whole farm demonstrations held in 1940. These are demonstrations of the making and carrying out of plans for the use of the land of an individual farm or ranch. Some whole farm or ranch demonstrations were developed by extension agents alone, but the majority were carried out in cooperation with other agricultural agencies. The success of such a demonstration may be measured by the extent to which it has improved the land, the home, and the family.

Arkansas conducted 221 unit demonstrations in 60 counties, including the building and repair of residences; provision of running water, electricity, and the like, and redecorating of furniture for the home; installation and repair of electric plants, planting of soil-conserving crops, use of fertilizer, and testing for Bang's disease.

At conferences with agricultural leaders in Wisconsin both farm and home problems were studied on selected farms in the county, and improved farm and home plans were developed by owners, members of dairy-herd-improvement associations, Smith-Hughes teachers, and representatives of the various agencies in the Department of Agriculture.

In Indiana farm-management schools were held in 55 counties with 4,352 in attendance; 1,100 farm lease contracts were prepared and sent to farmers and others on request from 67 counties; 837 farmers enrolled from 79 counties in farm account work; and 20,843 farmers attended extension meetings and conferences where problems in farm organization and management and marketing were discussed.

Through a cooperative plan carried out by the Extension Service, Farm Security Administration, Farm Credit Administration, Agricultural Adjustment Administration, and Soil Conservation Service, 40 percent of Kansas farms prepared farm plans, and 15 percent prepared and used farm-credit statements as an instrument in conducting their farm business.

Low-Income Families Aided

So many troubles accompany low income that this evil is classed as America's No. 1 farm problem. County extension agents, under guidance from State extension specialists, help farm people meet this problem in many ways.

In southern New Jersey, in Cumberland County, an important piece of work has been to keep the earned dollars on the farm. This has been achieved on vegetable farms, for example, by doing more work on the farm, such as growing plants, and by lengthening the market seasons with winter-stored vegetables. On dairy farms, the production of more feed units on the home farm, the improvement of pastures, and similar methods are equally useful in conserving hard-earned milk dollars. Barn and home meetings, circular letters, and other means are used extensively.

One of the most significant methods used to assist low-income people is the auction market. Markets are now vast assembly places where all farmers bring their products for sale. Here, regardless of financial standing or personal obligations, the farmer may sell his produce—one package or a thousand—to the highest bidder, and get cash for it. His cost of marketing is reduced, the risk of selling is eliminated, and his efforts for better packaging and quality are rewarded. This marketing service is in itself a big factor in helping income. Figures comparing prices at the auction with those obtained under the old method of shipment show thousands of dollars gained in increased income and reduced selling costs.

In farm accounting, in soil-test meetings for lime and soil improvement, in strawberry culture meetings, and in countless other instances extension agents meet directly with the people who most need this type of aid.

The Extension Service assisted in opening new and substantial markets for farm products by cooperating with the Surplus Marketing Administration in furthering the food-stamp plan. Economic surveys conducted in more than 200 food-stamp areas furnished evidence that needy families offer a great potential market for surplus farm foodstuffs.

Economic Security Through Better Home Management

As the foreign war continued and national-defense programs got under way in this country, the Extension Service home-management programs kept rural families informed on current and pending economic changes and thus often assisted them to be prepared well in advance of actual situations.

Such help reached the farm families through current releases and meetings on farm family living and agricultural outlook. An increasing number of farm families made their farm and home financial plans and recorded expenditures so that adjustments for the next year could be based upon facts.

Local leaders and women who were on community, county, and State land-use planning committees became familiar with basic data relating to family living expenditures and the value of home-produced food, fuel, and housing. Such data threw light on the farm family living problems that needed to be attacked at once, such as rural housing, expansion of rural electrification, and how household equipment could be procured to lessen the labor of the homemakers.

Maine conducted a level-of-living study to obtain pertinent family living data and thus helped farm people become aware of their problems. In 14 counties that undertook the study, the problems found to be most important were expansion of electricity, running water, improved roads, bathrooms, and off-the-farm employment.

Because of an expected decrease in income in certain parts of the country, farm women with the assistance of extension workers exchanged experiences on when it is profitable to produce things for the home, such as bread from home-ground flour, making house dresses and aprons, expanding the vegetable and fruit gardens, and producing more meat, milk, and poultry for home use.

4-H Club members studied the management of their personal finances, to be ready for the problems they would meet in the future. Older 4-H Club members also assisted in making the yearly family financial plans, keeping necessary records, and analyzing records, through family councils, as a basis for the next year's plan.

Special aid was given tenant families in the making of removable pieces of equipment that could be transported from one farm home to another.

In areas where lumber and stones were available, farm families demonstrated that a good farmhouse can be built with very little cash expenditure, if one takes the trouble of collecting the available materials from the farm and is interested enough to obtain help on the knowledge and skills required for home buildings. The Extension Service in Arkansas trained a group of young men to build stone foundations and then to conduct demonstrations for interested farmers.

4-H Club members, both boys and girls, enrolled in greater numbers in house furnishing and home improvement clubs and did their part in refinishing furniture, making slip covers, painting and papering walls, and learning how to make the home a place of comfort and beauty at little expense.

The home-management subject matter has been integrated into other projects by encouraging practices that make extra cash available for the farm family, and by helping families to realize that land

use is closely tied up with the time and energy of the family. The production of food and feed as well as other commodities in the live-at-home programs benefits the family by providing better diets and more efficient use of resources and by releasing for additional living purposes cash that otherwise would be needed for food and feed.

The home-management program is planned to help farm families in the use of their money and other resources in such an inter-related way as to develop a satisfying life for the family and its members. This involves cooperation within the family group; relation of activities of the family to civic life; better housing facilities; more efficient and satisfactory ways of using funds for family living; principles for doing household tasks without unnecessary fatigue; and interests, within the home and without, that will result in enjoyable and interesting living.

In Louisiana, during 1940, the first 15 minutes of each home demonstration club meeting were given to a discussion of some economic problems confronting the women of the State. The agents led the discussions with assistance of the presidents and other club members. The material for discussion was prepared by the home-management specialist.

Many problems of consumer buying arise from the lack of certain vital information about materials. Extension workers furnished much-needed help to rural homemakers by giving demonstrations and lectures on quality and value of certain makes of goods and equipment.

In Missouri, for example, demonstrations were held on selection of floor coverings and furniture, buying of small kitchen equipment, selection of bedding, a buying plan, and selection of electrical equipment.

Farm Families Helped With Credit Problems

Recent years have witnessed an expanding use of credit on the part of farm families. Practically all families find it necessary to borrow money with which to purchase farms. Today an increasing number are using production credit to meet current expenses for farm operation. Likewise, an increasing number are using consumer credit to finance the purchase of goods that enter into family living.

If farm families are to use credit intelligently they must be informed on such matters as the agencies extending credit, the interest rate and other charges made by each agency, and the repayment plan. They are asking extension agents to include more credit information in the program of work in the counties.

To equip home demonstration agents for this task, several States held training conferences in credit in 1940. Kansas conducted 1-day training schools for home demonstration agents and home supervisors in the Farm Security Administration in six centers. Subject matter was presented by one of the home economists on the staff of the Farm Credit Administration. As a part of the follow-up of these training schools, each home demonstration agent in Kansas arranged for one meeting in each of the centers in her county at which some phase of credit was discussed.

Home economists of the Farm Credit Administration assisted at training conferences for home demonstration agents in a number of

other States, with especially good results in Massachusetts, Minnesota, and West Virginia.

Home advisers in Illinois reported 1,613 families kept home accounts in 1940 according to the recommended plan. Group meetings for new cooperators were held in 29 counties.

Farm Forestry Adds to Family Security

The farm-forestry program centers on the farm home and its economy. Therefore, through farm-forest extension, technical assistance is given to farmers in the proper management of their farm woodlands and in the establishment of wood lots, shelterbelts, and windbreaks. The 185 million acres now in farm woodlands serve the farmers of the Nation in one or all of several ways—protection of soil and water supplies, protection from wind, wildlife maintenance, and provisions of fuel, fence posts, lumber, and crops of timber and other products for sale. The extension foresters emphasize those phases of the problem that are of immediate interest to individuals, groups, and localities.

During the fiscal year 1941 forestry specialists contributed much toward a clearer understanding of forestry as related to State and county land-use programs. With the aid of subject matter and the advisory counsel of extension foresters, county committees developed recommendations giving forestry a more prominent place in agricultural programs. In many counties definite steps were taken to bring about adjustments and to provide assistance in such problems as forest-fire protection, woodland management, and timber marketing.

An example of an effective contribution to county agricultural planning is cited from Georgia. The extension forester, with the cooperation of a Forest Service representative, called together 12 foresters from State and Federal agencies and arranged for temporary work in selected counties to study forest conditions, to prepare reports for the use of the county committees, and to serve the committees in an advisory capacity. Similar studies were carried on in Illinois and Indiana with the assistance of extension staff members.

In Ohio and Michigan, as in other States, the extension foresters found that educational work with county committees leads to the development of action programs in such problems as reforestation, protection, and management of farm woodlands.

Through the Agricultural Adjustment Administration program, farm forestry received considerable impetus, particularly in regard to forest-tree planting and woodland improvement. Outstanding work in reforestation on farms was accomplished in many States. In Hardeman County, Tenn., the county agent reported that 488 demonstrators planted 2,163 acres to forest trees during the planting season that ended April 1. The major portion of the 2,542,600 trees planted were supplied by the State forestry division and distributed to farmers under the agricultural conservation program through the county agent's office.

During the spring of 1940 Wisconsin farmers in 7 counties planted nearly 2½ million trees in windbreaks as compared with 400,000 in 1935, a gain of 500 percent.

Florida county agents reported that 712 farmers in 37 counties planted 4,807,600 forest trees, mostly slash pine, on more than 7,000

acres. These plantings are expected to increase the total income for these farms over a 40-year period by about \$589,000.

The Extension Service in South Dakota has taken the lead in the establishment of community forests. Eighteen such forests were established during the year to improve rural recreational facilities.

In Michigan, in addition to the planting by 4-H Clubs on individual farms, the Extension Service carried on an important project in the planting of community school forests on land owned by the schools.

Approximately 9,000 members of home demonstration clubs in 10 Arkansas counties established 10 demonstration forests by planting forest seedlings on idle farm acres on which leases are held for a period sufficient for seedlings to mature to sawlog or fence-post size.

Farmers in Mississippi planted 11,000 acres of trees on cut-over farm land in 1940. This was more than the total planted there in the preceding 10 years. They also carried on a campaign of conservation by persuading landowners to stop clear-cutting, to leave seed trees, and to leave all growing stock under 14 inches that is clear and straight.

For all types of forest-tree plantings in the United States, reports show that a total of 225,945 acres on farms were reforested with approximately 200 million trees, which were distributed from nurseries operated by State agencies, in cooperation with the Forest Service, the Soil Conservation Service, the Tennessee Valley Authority, and the Prairie States Forestry Project. A large percentage of these trees were distributed with the assistance of Extension Service representatives.

Since 1930 an annual average of a million and a third forest-tree seedlings have been planted on farms in Puerto Rico, for the establishment of wooded tracts, coffee shade, pasture shade, windbreaks, marginal-land reclamation, and boundary plantings.

Farmers having windbreaks to protect their farmsteads state that they consider such tree plantings to be worth from \$1,000 to \$2,500 to the farm, and yet the cost of establishing them was negligible.

Twenty-three woodland management records covering 3,787 acres of timber in 16 counties of South Carolina showed a net return to the landowners of more than \$10,000 in 1940, indicating the value of woodlands in increasing farm income.

A farm-forest survey in Beaver County, Utah, revealed that 60 percent of the farmers now have adequate or partial protection for their farms through established tree windbreaks or shelterbelts—a project promoted by the Utah Extension Service.

When the foreign source of supply of cork was cut off, the extension foresters of California encouraged the planting of cork oak trees by farmers where such trees are adaptable. This project will lead eventually to a promising source of farm-forest income.

The effects of the National Defense Program are being felt. The rather brisk demand for timber has caused farmers to cut their woodlands heavily to get the maximum return. Extension foresters have recognized the overcutting situation and have attacked the problem vigorously through publicity, meetings, demonstrations, and personal contacts. Farmers are being advised on management practices, including selective cutting, which removes some of the larger

trees together with those that are inferior in quality and rate of growth and leaves a good stand of poles and younger growth well distributed for a future crop. Extension foresters in Mississippi, South Carolina, North Carolina, and those in the Central, Lake, and New England States have given strong emphasis to proper cutting. In some States the forestry specialists have trained local men to assist farmers in marking and estimating timber stands for cutting. The heavy movement of timber has been accompanied by numerous requests for marketing assistance. To meet this need, extension workers have compiled and distributed marketing information, conducted estimating demonstrations, and given technical assistance in individual and group marketing. The problem of group marketing, or the pooling of timber products, is being studied with a view to developing more orderly systems for marketing farm timber. These marketing services have increased considerably the income from timber over that received through the usual lump-sum selling. Because of extension aid, wood-lot owners in Burlington County, N. J., for instance, received \$12.50 per 1,000 feet, board measure, for their trees instead of \$4, the price first offered them.

Extension workers, particularly in the South, have cooperated with State forestry departments in calling attention of farm people to the serious damage created by forest fires. Demonstration meetings, campaigns, essay contests, and distribution of literature have had a part in the fire-protection program. Rather dry conditions over a period of months were conducive to burning and create hazards that justified unusual effort on the part of extension people. The work of extension agents in Alabama led to the signing of agreements by 53,967 farmers in 58 counties to protect their lands from fire.

Economic conditions generally have favored the use of farm timber for farm building and repair purposes. Many farmers in the lower income levels, particularly in the Southern and Lake States, found that home-grown timber could provide them with better and more adequate farm buildings than they could otherwise afford. Arkansas has taken the lead in this work through the holding of farm-builders' schools. Widespread interest was created, and thousands of farmers constructed new homes, barns, poultry houses, and other buildings of native materials. With a very small outlay of cash, and through exchange of materials and labor, farmers provided themselves with more livable homes and with buildings which in some cases contributed to an increase in the farm income.

A farmer in Baraga County, Mich., saved \$1,500 in the cost of building his barn by using timber from his farm wood lot. Construction was done by the owner and his two sons.

Texas reports 22 cooperatively owned farm sawmills. The average total cost was \$70. They were made from parts of sawmills, scraps, old machinery, and automobiles, and powered by discarded automobile engines.

4-H forestry work continued on a satisfactory level. Reports for 1940 show a membership of approximately 29,000 members in 4-H forestry work and the number appears to be increasing. In Nebraska in 1940, 184 4-H forestry clubs were organized in 53 counties with a membership of 2,082. 4-H Club members planted

64,189 trees and shrubs. Forest-tree planting has particular appeal in junior forestry work, and millions of trees have been planted yearly. Other 4-H phases of forestry are woodland improvement and tree identification.

Youth Replies, "I Can!"

Taking an active part in home, farm, and community affairs during 1940-41 were 1,420,297 rural boys and girls enrolled in 79,721 4-H Clubs throughout the Nation. These future citizens were trained for the rural leadership of tomorrow through projects designed to teach them to do by doing—to be successful farmers by farming, to be homemakers by "keeping house," to be conservationists by conserving, and to be courageous defenders of democracy by defending the American way of life, especially in times of emergency. More than 75 percent of those enrolled completed their projects.

The far-reaching influence of 4-H Club work is more clearly understood when one realizes that during the last decade more than half of the children of 4-H Club age, growing up on the farms of the United States, became 4-H Club members.

Defense was the warp and woof of the program of 4-H Club work during 1940-41. The program was based on the following points:

- (1) Interpretation of the total National Defense Program to the community.
- (2) Production of food, clothing, and home equipment for better family living. This phase of the program was accelerated by the food-for-defense program.
- (3) Conservation of human and natural resources on the home farm and in the local community.
- (4) Development of the health of the individual and of the community. In all 4-H activities special emphasis was placed on the holding of regular health examinations, correction of defects, and development of good food and health habits.
- (5) Acquirement of useful technical and mechanical skills.
- (6) Practice in and appreciation of the democratic way of life.
- (7) Development of an understanding of the social and economic forces at work, particularly in the Western Hemisphere, and steps to take in developing a "good neighbor" policy.

In outlining the part 4-H Club members can play at home in the program of national defense, leaders inspired the boys and girls to meet with courage and fortitude disconcerting circumstances that may arise in furthering emergency plans of the country. They were encouraged to substitute for farm labor, wherever possible, when the older boys were taken into the service.

Extension workers, club leaders, and parents observed that 4-H members everywhere developed skills with more pointed objectives. They realized that they must develop skills if they are to serve their home and country during the emergency and maintain adequate living standards when the highly geared machinery of defense industry slows down. The concerted drive to make 4-H Club work available to all rural boys and girls is a drive to bulwark American democracy.

4-H Club projects operating in more normal channels of endeavor covered almost the entire fields of farming, homemaking, and farm family living. One paramount objective was always kept to the fore: To make the best better.

A chronicle of the activities of the 4-H Club boys and girls during the report year would include numerous success stories of young men and women engaged in raising all types of crops grown in the United States, raising the major types and breeds of livestock and poultry found on farms in this country, helping to provide food and clothing and comfortable and convenient homes for practically every type of rural family in the 48 States, and helping to improve living conditions in all sorts of rural communities.

The Secretary's call to the farmers of the Nation to produce more dairy and poultry products met an enthusiastic response by members of 4-H Clubs. Approximately 75,000 boys and girls enrolled in dairy projects owned 73,000 animals, according to 1940 records. Through demonstrations, judging contests, exhibits and tours, and participation in county, State, and regional fairs, these potential dairymen learned scientific methods of breeding, feeding, fitting, and caring for their cows, heifers, and sires. One county in Oregon reported that 1940 saw a 50 percent increase over 1939 in the enrollment in dairy clubs.

Membership in poultry clubs in the United States totaled 176,514, with 5,452,480 birds. More than 12,500 Oklahoma boys and girls were enrolled in poultry projects in 1940, or nearly one-fourth of the State's membership of 57,324. It is estimated that these members raised 500,000 birds with a combined value and income of nearly a million dollars.

Beef-club members in New Mexico have been so successful with their animals that finance companies, banks, and individuals do not hesitate to lend boys and girls sufficient money to carry on their activities. More than 61,000 members enrolled in beef projects last year in the States.

Enrollment in baby beef and sheep clubs in Nebraska reached a new high in 1940 with 2,846 and 1,312 members, respectively. Other animal husbandry clubs in that State enrolled 2,007 boys and girls.

Sheep clubs were popular in many other States, with 28,945 boys and girls enrolled in this project in 1940.

Almost 151,000 club members enrolled in swine projects owned 150,910 hogs. In New York State alone it was estimated that 90 tons of pork were produced for home use by club members.

Insect work is commanding the attention of more club members each year. 4-H people are coming to realize the importance of entomology and the value of knowing the habits and control of insect pests.

Club members are learning about insects through camps, short courses, contests, team demonstrations, and specific entomology projects. Oklahoma, for example, reported 3,427 members enrolled in insect control projects. Every county in the State was represented. In Texas 269 boys in 28 counties were trained by agents to recognize and control 25 different kinds of insect pests. Forty-two of these boys participated in a contest at the State short course.

Records show that 4-H Club members aided materially in providing and caring for the farm family food supply.

Eighty-one girls in Glascock County, Ga., who enrolled in 4-H garden clubs, cultivated 27 acres and harvested 70,983 pounds of vegetables to augment the family food supply. Club girls in Texas grew

17,000 "frame" gardens, each about 6 by 50 feet and covered with a cloth frame, under which early salad vegetables were produced.

Club girls not only produce food to augment the family supply but they also prepare it for serving. Throughout the country the importance of having well-planned meals and appetizing food was taught the girls by their leaders. In addition food and health habits were emphasized.

4-H Club girls in Texas put up 2,479 tons of food in 1940. That included 1,100,013 quarts of food canned, in addition to cured and dried foods. Altogether they grew 18,520,530 row-feet of vegetables, estimated to have produced another 2,400 tons. These girls also looked to the future and set out 119,495 trees and vines in 4,922 orchard or fruit plots. But the production of food and the making of preparations for future supplies did not end the Texas food-for-health program. These girls prepared 23,930 dishes of food and planned and served 223,487 meals. In 14,580 homes, girls reported that some definite improvement in table service had been made.

"Be your own best exhibit" and "Put your best foot forward" were among the slogans adopted by 4-H Club girls in furthering their clothing projects. The 4-H miss during 1940-41 was not only taught to make her own wearing apparel but how to select articles she could not make so that her clothing would be becoming and enhance her charm and beauty. In addition to preparing and caring for their own wardrobes, club girls learned to assist in planning and constructing the family wardrobe whenever possible. Such projects involved sewing, mending, laundering, remodeling, and dyeing.

Almost half of the entire 4-H Club enrollment in Utah for 1940 was in clothing projects. Extension conducted 66 leaders' training meetings. At the annual leaders' training school, 40 clothing-project leaders from 22 counties were given training in the project they were to lead.

During 1940, clothing clubs throughout the United States enrolled 467,547 girls and 1,449 boys. These members made 403,764 dresses and 1,083,681 other articles.

Helping provide food and clothing for the rural family were among the major projects successfully carried out by the 4-H girl. In addition, she learned to care for the home by following recommended practices and scientific home-economics principles. She learned to remodel and reupholster furniture, clean wallpaper, fill cracks in walls, improve rooms, make inexpensive furnishings, select appropriate color combinations for various rooms, and make the family feel comfortable at home. She learned to keep accounts, plan budgets, and even market farm produce.

Similarly, the 4-H boy learned scientific methods of sowing, reaping, and marketing crops; breeding, feeding, fitting, and marketing livestock; caring for growing things on the farm; repairing machinery and equipment; building homes, barns, sheds, and handy gadgets; controlling erosion, weeds, loss of soil fertility, insects, and diseases; conserving resources; and cooperating with others within and without his family group.

Handicraft work gained in importance in many States. This project was designed to teach members the use of tools and how to construct articles and finish them correctly and not necessarily to make

craftsmen out of the youngsters. One four-county district in Michigan enrolled 890 in handicraft work in 1940. They made 3,821 articles valued at \$3,908. Thirty-seven similar clubs in one county in Massachusetts made 2,500 articles.

The significance of this project is better understood when it is realized that 87,456 members enrolled in 1940 made 237,728 useful articles.

Community service was emphasized throughout all 4-H Club work wherever organizations were active. Members cleaned schoolyards and churchyards; helped purchase furniture and fixtures for churches and community buildings; helped needy families; helped raise funds for worthy causes; and held public meetings to interest parents and inform them about club work. In Schenectady County, N. Y., clubs held mothers' teas, parents' parties, home-talent plays, and movies. One club took over the lecturer's program at the local grange and presented a play on 4-H Club work. A club in Alamance County, N. C., purchased a registered sire for the dairy herds of the community, while several clubs put on campaigns for the improvement of mail boxes.

More emphasis than ever before was placed on the health "H" by club leaders everywhere. Proper diets, good posture, proper clothing, good health habits, and the need for physical well-being were stressed in the programs. Free physical examinations were given thousands of 4-H girls and boys through the cooperation of medical men and women. Recreation was featured prominently in the health phase. Musicales, dramas, pageants, balls, hikes, picnics, song fests, tours, were some of the activities that helped young people to keep physically fit and mentally awake.

In Berkeley County, W. Va., 225 of the 263 club members in the county received physical examinations. Poor posture was the greatest defect and bad teeth a close second. As a result of the examinations and the activity of extension workers in cooperation with parents, teachers, club leaders, and the county health doctor and nurses, many defects were remedied.

One of the strongest 4-H activities is the club camp which serves as a valuable motivating influence and tends to round out the year's work. In the programs special emphasis is placed on pertinent problems of the time. The camp gives leaders and agents an opportunity to reach boys and girls who are not attracted by the more formal phases of the work.

Realizing that one of the most effective ways of developing a national unity and a strong spiritual and psychological defense is by affording people opportunity to talk things over, extension officials emphasized the need for discussions by 4-H Clubs of the benefits of democracy and the American way of life. In community, county, State, and national programs citizenship was brought directly under the spotlight of attention.

Massachusetts' junior leaders' conference devoted a week to studying and discussing 22 privileges "which we enjoy all too casually." Each privilege was analyzed by the members who also determined the responsibilities attached. At the end of the course, a "balance sheet" was required from each participant, recording the following: "I have received from the United States"; "I have repaid to the

United States to date"; "What I have decided to do to further repay my indebtedness."

Among the more than 22,000 rural youth of Oregon, stress was placed on training for citizenship, and particularly on the privileges and responsibilities of citizenship in a democracy. The State local leaders' association took the lead by urging that every club meeting be opened with the pledge of allegiance to the flag as well as with the 4-H Club pledge. They also recommended that citizenship be discussed for a short time at each meeting.

Older Youth Take Part in Affairs

In most States, programs for older youth were in operation throughout the report period. They studied and discussed principles of citizenship and democracy; the part young rural people can play in a defense program; how to make adjustments on the farm and in the home to meet situations created by the emergency; how to choose a vocation; major problems of establishing a family and a home; how to maintain good health; how to remake clothing and to care for the house; how to select, feed, and care for all kinds of livestock; how to market farm produce; and how to make necessary purchases wisely and efficiently.

Kansas set up a 3-year course of instruction for farmers too old for 4-H Clubs and not old enough to take part in county and community activities. Each course was designed to fit respective sections of the State. The first year's course centered on soil management and crop production, the second on livestock production and feed utilization, and the third on cooperation with the experiment station and Extension Service in carrying on their programs of scientific farming. In Kentucky, 1,100 older farm boys and girls in 38 counties belong to Utopia clubs, designed to train for leadership.

These older groups throughout the country took an active part in land-use planning and in the programs conducted by the Department for the conservation of natural resources.

Nor is the spiritual side of the 4-H club member neglected. In addition to the injection of a deep religious undertone to the whole program, special services were conducted by and for club members in thousands of rural churches on Rural Life Sunday, a time agreed on by the State leaders. Sermons, songs, and responses were dedicated to the spiritual welfare of nearly a million and a half club boys and girls. Rural Life Sunday in 1940 and again in 1941 was observed by more members than in previous years.

Security Through Understanding

In addition to reaching thousands through extension meetings, visits, and voluntary local leaders, extension agents during the year disseminated useful and important information on farming and homemaking to countless other thousands through regular local radio programs, farm and home advice columns and other educational stories in local newspapers and farm magazines, through motion pictures, exhibits, circular letters, filmstrips, color slides, bulletins, photographs, and other educational devices.

Extension agents during the year placed 13,400,000 copies of Department and State extension and experiment station bulletins in filling requests from farm people.

To assist extension agents in visualizing their message, State and Federal extension workers provided a steady flow of current visual, news, radio, and other educational material.

Thirty new Department of Agriculture motion pictures were produced during the year by the motion-picture section in the Extension Service. Twenty-six old pictures were revised. These and other Department motion pictures during the year were seen by about 36 million people. Likewise Department exhibits produced by the Extension Service exhibits section were shown during the year at 96 different large fairs and exhibitions. State and county extension workers reached additional millions at 37,000 exhibits at local fairs and events.

Through the Extension Service Review, Federal extension monthly house organ, and through summer training schools for extension workers, research studies on extension teaching methods, staff training conferences, field visits, and countless letters, telegrams, and circulars, the more than 9,000 extension workers are kept abreast of changing agricultural situations and modern developments in educational methods.

Funds and Workers

Slightly more than \$33,194,000 was allotted from all sources for cooperative extension work for the year ended June 30, 1941. Around 56 percent of that amount came from Federal appropriations. State and college funds accounted for 20.2 percent, county appropriations for 20.5 percent, and other local sources 3.3 percent.

Federal extension funds authorized under section 21 of the Bankhead-Jones Act of June 29, 1935, reached the maximum of \$12,000,000 per annum on July 1, 1939. In accordance with recommendations of the Bureau of the Budget, the Federal supplementary and additional cooperative extension appropriations were eliminated from the agricultural appropriation act of 1940 when the Bankhead-Jones appropriation reached its maximum.

To prevent 21 States from suffering losses in their total Federal extension allotments through the discontinuance of the Federal supplementary and additional cooperative appropriations, the Congress enacted legislation to provide for the further development of cooperative agricultural extension work, which was approved by President Roosevelt on April 24, 1939. This act authorized an appropriation of \$300,000, but the actual appropriation for 1940 was in the sum of \$203,000. The other 27 States, Hawaii, and Puerto Rico received increases in their 1940 Federal allotments over the sums received in 1939.

The \$203,000 appropriation for further development under the terms of the act of April 24, 1939, was continued during 1941. Puerto Rico received an increase of \$25,000 in its Bankhead-Jones extension funds for 1941, while the allotments to the 48 States, Alaska, and Hawaii were the same as their 1940 allotments.

No Federal-extension funds were withheld from the States and Territories during the year for failure to comply with the appropriation requirements.

On June 30, 1941, 9,146 cooperative extension workers were employed, compared with 9,074 a year earlier. Of these, 2,953 were white county agricultural agents, 1,901 white home demonstration agents, 302 white 4-H Club agents, 1,195 white assistant agents in the counties, 270 Negro county agents, 230 Negro home demonstration agents, and 1,664 State extension specialists. The remainder were supervisory, clerical, and other employees.

TABLE 2.—*General summary of extension activities and influence, 1940*¹

Item	Number	Counties reporting
County associations fostering extension work.....	6, 891	2, 665
Members in such associations.....	882, 675	2, 609
Communities in counties.....	77, 875	2, 964
Communities with extension program.....	65, 188	2, 772
Voluntary local leaders:		
Men leaders in adult work.....	261, 536	2, 667
Women leaders in adult work.....	285, 991	2, 652
Men leaders in 4-H Club work.....	41, 188	2, 669
Women leaders in 4-H Club work.....	67, 610	2, 720
Older club boy leaders in 4-H Club work.....	18, 795	1, 732
Older club girl leaders in 4-H Club work.....	26, 949	1, 812
Clubs or other groups organized to carry on adult home demonstration work....	51, 101	2, 450
Members in such clubs or groups.....	1, 140, 723	2, 404
Organized 4-H Clubs.....	79, 721	2, 944
Members in 4-H Clubs:		
Enrolled.....	1, 420, 297	2, 927
Completed.....	1, 070, 563	2, 909
4-H Club projects:		
Started.....	2, 841, 809	2, 927
Completed.....	2, 062, 584	2, 909
Groups organized for extension work with rural young people above club age....	2, 121	1, 040
Membership.....	70, 496	958
Total number of meetings held by county extension agents.....	1, 369, 650	2, 909
Attendance.....	46, 369, 976	2, 907
Adult meetings held by local leaders not participated in by agents.....	319, 461	2, 443
Attendance.....	5, 811, 977	2, 441
4-H Club meetings held by local leaders not participated in by agents.....	438, 139	2, 465
Attendance.....	6, 489, 908	2, 460
Farms in counties with extension agents.....	6, 809, 120	2, 988
Farms on which changes in practices have definitely resulted from agricultural extension program.....	3, 802, 114	2, 865
Homes in which changes in practices have definitely resulted from home demonstration program:		
Farm homes.....	1, 698, 577	2, 446
Other homes.....	567, 456	2, 354
Homes with 4-H Club members enrolled:		
Farm homes.....	860, 019	2, 874
Other homes.....	217, 277	2, 604
Families influenced by some phase of extension program:		
Farm families.....	4, 791, 433	2, 936
Other families.....	950, 182	2, 837

¹ For detailed statistics see Extension Service Circular 363, Extension Activities and Accomplishments 1940 (processed).

TABLE 3.—Number of counties with county extension agents, July 1, 1915, 1925, 1935, and 1941, and total number of extension workers, July 1, 1941

State	Counties in State	Counties with agents on July 1—								Total extension workers, July 1, 1941
		1915		1925		1935		1941		
		Men	Women	Men	Women	Men	Women	Men	Women	
Alabama.....	67	67	19	59	37	67	44	67	67	375
Arizona.....	14	3	-----	12	9	11	6	12	9	39
Arkansas.....	75	52	20	50	39	75	72	75	75	243
California.....	58	11	-----	43	22	43	25	41	29	189
Colorado.....	63	13	-----	20	2	45	5	50	16	105
Connecticut.....	8	6	-----	8	7	8	8	8	8	77
Delaware.....	3	3	-----	3	-----	3	3	3	3	22
Florida.....	67	36	27	36	30	44	29	59	38	155
Georgia.....	159	81	48	121	61	155	80	158	98	369
Idaho.....	44	3	-----	16	27	31	37	34	44	69
Illinois.....	102	18	-----	95	21	97	39	102	72	240
Indiana.....	92	31	-----	79	1	91	12	92	49	229
Iowa.....	99	11	-----	99	15	99	35	99	73	296
Kansas.....	105	39	-----	63	15	100	27	103	50	261
Kentucky.....	120	39	19	72	24	114	29	120	54	287
Louisiana.....	64	43	13	48	24	62	52	64	63	236
Maine.....	16	3	-----	16	15	16	15	16	16	62
Maryland.....	23	13	6	23	19	23	23	23	23	105
Massachusetts.....	14	10	-----	11	11	11	10	11	12	105
Michigan.....	83	17	-----	57	5	73	5	83	33	193
Minnesota.....	87	23	-----	58	8	86	11	87	27	262
Mississippi.....	82	49	33	54	44	79	69	82	76	339
Missouri.....	114	15	-----	50	9	114	14	113	84	277
Montana.....	56	8	-----	23	6	40	8	48	13	82
Nebraska.....	93	8	-----	43	2	93	14	89	24	176
Nevada.....	17	-----	-----	8	9	14	6	14	4	26
New Hampshire.....	10	5	-----	10	8	10	10	10	10	69
New Jersey.....	21	7	-----	18	11	19	15	20	20	91
New Mexico.....	31	8	-----	21	5	24	10	30	14	66
New York.....	62	29	-----	55	38	51	37	55	41	335
North Carolina.....	100	64	34	74	49	97	53	100	88	413
North Dakota.....	53	15	-----	33	1	53	4	51	12	110
Ohio.....	88	10	-----	85	15	84	22	86	55	234
Oklahoma.....	77	56	24	65	44	77	68	77	77	246
Oregon.....	36	12	-----	28	3	34	6	36	14	108
Pennsylvania.....	67	14	-----	63	28	65	63	66	66	223
Rhode Island.....	5	-----	-----	5	2	5	5	5	5	27
South Carolina.....	46	43	24	40	38	46	46	46	46	211
South Dakota.....	69	5	-----	34	32	69	27	61	36	117
Tennessee.....	95	38	24	50	26	95	42	94	73	339
Texas.....	254	99	27	155	88	235	151	252	193	667
Utah.....	29	10	-----	18	11	21	8	26	10	63
Vermont.....	14	9	-----	12	7	14	11	14	14	58
Virginia.....	100	55	22	65	35	93	42	99	62	301
Washington.....	39	10	-----	26	5	38	8	39	25	123
West Virginia.....	55	27	10	36	15	44	27	48	40	155
Wisconsin.....	71	12	-----	48	1	65	7	68	34	185
Wyoming.....	23	6	-----	16	5	20	7	21	8	48
Alaska.....	-----	-----	-----	-----	-----	-----	-----	-----	-----	6
Hawaii.....	5	-----	-----	-----	-----	4	4	4	4	45
Puerto Rico.....	-----	-----	-----	-----	-----	-----	-----	32	21	87
Total.....	3, 075	1, 136	350	2, 124	929	2, 857	1, 351	2, 993	2, 028	9, 146

TABLE 4.—Expenditures of funds from all sources for cooperative agricultural extension work, fiscal year ended June 30, 1940, by sources of funds, and totals for 1935-39

State	Grand total	Total Federal funds	Total within the States	Funds from Federal sources						Funds from within States			
				United States Department of Agriculture			Smith-Lever, and Bankhead-Jones	Capper-Ketcham	Additional cooperative	Further development	State and college	County	Farmers' organizations, etc.
				Farmers' cooperative demonstrations	Clarke-McNary	Norris-Doxey							
Alabama-----	\$1, 206, 291. 24	\$698, 032. 82	\$508, 258. 42	-----	\$2, 970. 00	-----	\$657, 462. 21	\$37, 600. 61	-----	-----	\$199, 727. 83	\$302, 965. 24	\$5, 565. 35
Arizona-----	178, 686. 97	117, 005. 21	61, 681. 76	-----	-----	-----	87, 409. 22	22, 643. 99	-----	-----	31, 108. 54	30, 154. 69	418. 53
Arkansas-----	812, 339. 81	580, 275. 37	232, 064. 44	-----	1, 485. 00	-----	545, 172. 35	33, 618. 02	-----	-----	176, 654. 43	55, 410. 01	-----
California-----	946, 537. 69	404, 607. 96	541, 929. 73	-----	1, 620. 00	-----	368, 953. 05	34, 034. 91	-----	-----	326, 041. 19	215, 888. 54	-----
Colorado-----	376, 960. 02	213, 798. 52	163, 161. 50	-----	1, 560. 00	\$900. 00	171, 134. 37	24, 774. 15	-----	15, 430. 00	93, 667. 11	69, 494. 39	-----
Connecticut-----	304, 643. 52	130, 672. 74	173, 970. 78	-----	1, 545. 00	-----	96, 702. 01	24, 389. 73	-----	8, 036. 00	115, 062. 47	44, 500. 00	14, 408. 31
Delaware-----	93, 885. 52	76, 097. 80	17, 787. 72	-----	-----	-----	55, 031. 44	21, 066. 36	-----	-----	17, 075. 00	712. 72	-----
Florida-----	455, 157. 28	221, 001. 27	234, 156. 01	-----	1, 567. 50	-----	184, 416. 03	26, 555. 74	-----	8, 462. 00	91, 651. 02	142, 504. 99	-----
Georgia-----	1, 046, 076. 03	734, 668. 71	311, 407. 32	-----	1, 620. 00	330. 00	694, 090. 56	38, 628. 15	-----	-----	43, 058. 77	268, 348. 55	-----
Idaho-----	268, 559. 40	156, 236. 07	112, 323. 33	-----	1, 620. 00	388. 33	121, 857. 92	22, 919. 82	-----	9, 450. 00	47, 355. 11	64, 968. 22	-----
Illinois-----	1, 206, 089. 82	582, 600. 40	623, 489. 42	-----	1, 620. 00	764. 50	541, 755. 12	38, 460. 78	-----	-----	154, 362. 33	6, 974. 80	462, 152. 29
Indiana-----	965, 809. 28	464, 323. 95	501, 485. 33	-----	1, 620. 00	-----	429, 354. 23	33, 349. 72	-----	-----	226, 654. 85	238, 117. 13	36, 713. 35
Iowa-----	1, 253, 672. 24	531, 935. 33	721, 736. 91	-----	1, 620. 00	781. 00	495, 730. 84	33, 803. 49	-----	-----	227, 392. 73	327, 127. 19	167, 216. 99
Kansas-----	988, 463. 05	403, 996. 73	584, 466. 32	-----	1, 020. 81	-----	372, 323. 20	30, 652. 72	-----	-----	109, 315. 17	362, 345. 18	112, 805. 97
Kentucky-----	912, 028. 86	629, 800. 60	282, 228. 26	-----	1, 080. 00	-----	591, 919. 63	36, 800. 97	-----	-----	120, 000. 00	161, 069. 30	1, 158. 96
Louisiana-----	650, 902. 95	459, 016. 85	191, 886. 10	-----	1, 620. 00	-----	425, 662. 39	31, 734. 46	-----	-----	128, 692. 85	62, 554. 01	639. 24
Maine-----	244, 450. 73	157, 636. 94	86, 813. 79	-----	1, 570. 50	-----	127, 822. 37	24, 404. 07	-----	3, 840. 00	52, 576. 07	26, 452. 58	7, 785. 14
Maryland-----	486, 310. 82	197, 407. 15	288, 903. 67	-----	945. 00	1, 125. 00	165, 520. 54	26, 076. 61	-----	3, 740. 00	200, 811. 22	70, 579. 50	17, 512. 95
Massachusetts-----	481, 185. 07	137, 550. 73	343, 634. 34	-----	1, 620. 00	-----	104, 930. 88	23, 869. 85	-----	7, 130. 00	104, 983. 50	238, 650. 84	-----
Michigan-----	731, 531. 82	465, 316. 99	266, 214. 83	-----	1, 620. 00	405. 00	429, 038. 73	34, 253. 26	-----	-----	200, 302. 71	65, 912. 12	-----
Minnesota-----	811, 408. 01	479, 044. 47	332, 363. 54	-----	1, 620. 00	1, 008. 27	444, 327. 54	32, 088. 66	-----	-----	143, 120. 31	174, 148. 09	15, 095. 14
Mississippi-----	1, 058, 165. 24	686, 092. 30	372, 072. 94	-----	1, 485. 00	1, 155. 00	647, 989. 37	35, 462. 93	-----	-----	110, 178. 90	255, 652. 04	6, 242. 00
Missouri-----	893, 311. 39	605, 281. 47	288, 029. 92	-----	1, 532. 50	1, 237. 50	566, 129. 84	36, 381. 63	-----	-----	122, 501. 53	129, 909. 10	35, 619. 29
Montana-----	354, 683. 41	174, 597. 64	180, 085. 77	-----	800. 00	-----	130, 827. 99	23, 299. 65	-----	19, 670. 00	47, 862. 77	132, 223. 00	-----
Nebraska-----	606, 928. 78	345, 378. 63	261, 550. 15	-----	1, 620. 00	-----	308, 824. 52	28, 253. 11	-----	6, 681. 00	112, 008. 44	125, 383. 88	24, 157. 83
Nevada-----	132, 809. 55	73, 178. 64	59, 630. 91	-----	-----	-----	40, 230. 93	20, 523. 71	-----	12, 424. 00	30, 913. 63	28, 717. 28	-----
New Hampshire-----	244, 835. 09	96, 757. 48	148, 077. 61	-----	3, 240. 00	316. 66	67, 272. 10	21, 778. 72	-----	4, 150. 00	86, 307. 91	61, 769. 70	-----
New Jersey-----	440, 900. 02	172, 749. 45	268, 150. 57	-----	1, 620. 00	-----	130, 686. 41	26, 497. 04	-----	13, 946. 00	96, 699. 38	168, 524. 53	2, 926. 66
New Mexico-----	271, 214. 71	142, 485. 31	128, 729. 40	-----	-----	-----	111, 226. 45	22, 928. 86	-----	8, 330. 00	64, 990. 67	60, 984. 03	2, 754. 70
New York-----	1, 759, 957. 40	489, 701. 51	1, 270, 255. 89	-----	3, 240. 00	990. 00	446, 368. 21	39, 103. 30	-----	-----	504, 131. 69	746, 696. 03	19, 428. 17
North Carolina-----	1, 299, 994. 57	829, 874. 56	470, 120. 01	-----	2, 160. 00	-----	785, 871. 48	41, 843. 08	-----	-----	107, 672. 00	362, 448. 01	-----
North Dakota-----	360, 135. 21	249, 209. 65	110, 925. 56	-----	1, 260. 00	-----	216, 281. 72	25, 251. 93	-----	6, 416. 00	19, 465. 16	91, 460. 40	-----

TABLE 4.—Expenditures of funds from all sources for cooperative agricultural extension work, fiscal year ended June 30, 1940, by sources of funds, and totals for 1935-39—Continued

State	Grand total	Total Federal funds	Total within the States	Funds from Federal sources					Funds from within States				
				United States Department of Agriculture			Smith-Lever, and Bankhead-Jones	Capper-Ketcham	Additional cooperative	Further development	State and college	County	Farmers' organizations, etc.
				Farmers' cooperative demonstrations	Clarke-McNary	Norris-Doxey							
Ohio-----	\$1,051,188.82	\$599,190.91	\$451,997.91	-----	\$1,605.00	-----	\$557,788.89	\$39,797.02	-----	-----	\$218,179.91	\$233,818.00	-----
Oklahoma-----	845,545.04	553,222.22	292,322.82	-----	-----	-----	518,653.32	34,568.90	-----	-----	205,122.74	87,200.08	-----
Oregon-----	505,745.29	186,958.47	318,786.82	-----	-----	-----	145,882.31	24,294.16	-----	\$16,782.00	188,358.26	116,343.09	\$14,085.47
Pennsylvania-----	1,022,843.31	624,374.05	398,469.26	-----	1,260.00	-----	574,447.08	48,666.97	-----	-----	263,409.26	135,060.00	-----
Rhode Island-----	78,790.87	59,474.21	19,316.66	-----	-----	-----	38,992.38	20,481.83	-----	-----	4,766.86	9,469.13	5,080.67
South Carolina-----	687,484.21	499,681.52	187,802.69	-----	1,620.00	1,237.50	464,167.65	32,656.37	-----	-----	156,000.00	31,802.69	-----
South Dakota-----	368,950.12	261,394.04	107,556.08	-----	1,485.00	-----	213,302.91	25,200.13	-----	21,406.00	55,115.90	52,440.18	-----
Tennessee-----	928,974.43	636,193.99	292,780.44	-----	1,620.00	-----	598,657.19	35,916.80	-----	-----	138,734.91	154,045.53	-----
Texas-----	2,015,860.70	1,192,057.41	823,803.29	-----	1,620.00	-----	1,138,647.01	51,790.40	-----	-----	266,245.54	545,800.37	-----
Utah-----	199,812.70	122,117.04	77,695.66	-----	1,080.00	-----	90,066.47	22,235.57	-----	8,735.00	43,015.66	34,680.00	-----
Vermont-----	218,890.98	114,367.63	104,523.35	-----	1,620.00	-----	88,998.89	22,228.74	-----	1,520.00	56,000.00	39,806.42	8,716.93
Virginia-----	888,750.80	534,563.69	354,187.11	-----	1,620.00	825.00	496,976.47	35,142.22	-----	-----	217,595.13	135,229.53	1,362.45
Washington-----	395,083.62	218,254.54	176,829.08	-----	801.83	-----	191,170.66	26,282.05	-----	-----	40,521.76	136,307.32	-----
West Virginia-----	505,840.79	318,958.47	186,882.32	-----	1,516.50	-----	285,989.39	31,452.58	-----	-----	143,231.11	33,779.71	9,871.50
Wisconsin-----	799,386.77	483,625.27	315,761.50	-----	2,799.00	-----	448,008.17	32,818.10	-----	-----	95,492.94	211,734.55	8,534.01
Wyoming-----	188,784.03	109,875.74	78,908.29	-----	1,260.00	-----	68,182.06	21,438.68	-----	18,995.00	37,272.03	41,636.26	-----
Alaska-----	30,613.50	21,418.00	9,195.50	-----	-----	-----	13,918.00	7,500.00	-----	-----	9,195.50	-----	-----
Hawaii-----	161,166.10	126,435.15	34,730.95	-----	-----	706.66	103,773.28	21,955.21	-----	-----	34,730.95	-----	-----
Puerto Rico-----	314,362.62	161,685.75	152,676.87	-----	1,620.00	-----	160,065.75	-----	-----	-----	152,676.87	-----	-----
Total, 1940-----	33,052,000.20	18,530,181.35	14,521,818.85	-----	68,428.64	12,170.42	16,760,011.53	1,487,475.76	-----	202,095.00	6,438,010.62	7,091,798.95	992,009.28
1939-----	32,402,254.87	17,955,485.71	14,446,769.16	-----	50,247.42	-----	16,142,847.90	1,487,418.88	274,971.51	-----	6,660,961.17	6,844,259.39	941,548.60
1938-----	31,592,254.41	17,443,132.48	14,149,121.93	-----	50,104.71	-----	15,409,218.88	1,484,920.08	498,888.81	-----	6,526,987.68	6,695,016.07	927,118.18
1937-----	30,033,606.59	17,030,093.32	13,003,513.27	97,689.09	49,701.50	-----	14,660,842.68	1,479,691.65	742,168.40	-----	5,870,476.76	6,330,977.27	802,059.24
1936-----	28,299,905.64	16,190,624.41	12,109,281.23	179,708.02	48,323.51	-----	13,502,153.16	1,479,971.78	980,467.94	-----	5,220,032.99	5,887,700.67	1,001,547.57
1935-----	20,440,902.01	8,945,153.85	11,495,748.16	251,187.12	43,981.94	-----	6,196,581.60	1,472,568.37	980,834.82	-----	5,089,445.11	5,457,263.66	949,039.39

TABLE 5.—Sources of funds allotted for cooperative extension work, fiscal year ended June 30, 1941

State	Grand total	Total Federal funds	Total within the States	Funds from Federal sources					Funds from within the States		
				U. S. Dept. of Agriculture		Smith-Lever and Bankhead-Jones	Capper Ketcham	Further development	State and college	County	Farmers' organizations, etc.
				Clarke-McNary	Norris-Doxey						
Connecticut	\$273, 551.02	\$131, 490.02	\$142, 061.00	\$1, 620	-----	\$97, 437.21	\$24, 396.81	\$8, 036	\$116, 560.00	\$25, 501.00	-----
Delaware	94, 273.09	76, 598.09	17, 675.00	-----	-----	55, 531.73	21, 066.36	-----	16, 875.00	800.00	-----
Maine	238, 262.51	157, 686.44	80, 576.07	1, 620	-----	127, 822.37	24, 404.07	3, 840	52, 576.07	28, 000.00	-----
Maryland	389, 770.69	196, 957.15	192, 813.54	-----	\$1, 620	165, 520.54	26, 076.61	3, 740	123, 837.04	67, 076.50	\$1, 900.00
Massachusetts	485, 424.54	138, 855.54	346, 569.00	1, 620	-----	106, 235.69	23, 869.85	7, 130	107, 185.00	239, 384.00	-----
New Hampshire	244, 802.16	94, 820.82	149, 981.34	1, 620	-----	67, 272.10	21, 778.72	4, 150	86, 904.20	63, 077.14	-----
New Jersey	461, 203.67	172, 749.45	288, 454.22	1, 620	-----	130, 686.41	26, 497.04	13, 946	102, 315.00	182, 889.22	3, 250.00
New York	1, 759, 780.85	488, 967.68	1, 270, 813.17	1, 620	1, 620	446, 608.15	39, 119.53	-----	422, 640.00	611, 649.65	236, 523.52
Pennsylvania	1, 026, 251.05	624, 374.05	401, 877.00	1, 260	-----	574, 447.08	48, 666.97	-----	281, 877.00	120, 000.00	-----
Rhode Island	80, 487.69	60, 380.95	20, 106.74	-----	-----	39, 899.12	20, 481.83	-----	4, 815.24	11, 339.00	3, 952.50
Vermont	216, 767.63	114, 367.63	102, 400.00	1, 620	-----	88, 998.89	22, 228.74	1, 520	56, 000.00	40, 700.00	5, 700.00
West Virginia	515, 544.82	319, 065.82	196, 479.00	-----	1, 620	285, 992.31	31, 453.51	-----	143, 275.00	39, 662.50	13, 541.50
Total	5, 786, 119.72	2, 576, 313.64	3, 209, 806.08	12, 600	4, 860	2, 186, 451.60	330, 040.04	42, 362	1, 514, 859.55	1, 430, 079.01	264, 867.52
Alabama	975, 502.82	698, 302.82	277, 200.00	1, 620	1, 620	657, 462.21	37, 600.61	-----	220, 000.00	50, 000.00	7, 200.00
Arkansas	913, 949.37	580, 410.37	333, 539.00	-----	1, 620	545, 172.35	33, 618.02	-----	272, 727.00	60, 812.00	-----
Florida	552, 406.44	222, 673.77	329, 732.67	1, 620	-----	184, 416.03	26, 555.74	8, 462	187, 227.68	142, 504.99	-----
Georgia	1, 075, 368.71	735, 958.71	339, 410.00	1, 620	-----	694, 090.56	38, 628.15	-----	56, 953.00	282, 457.00	-----
Kentucky	931, 146.60	630, 340.60	300, 806.00	1, 620	-----	591, 919.63	36, 800.97	-----	130, 000.00	170, 806.00	-----
Louisiana	751, 866.85	459, 016.85	292, 850.00	1, 620	-----	425, 662.39	31, 734.46	-----	195, 925.00	92, 785.00	4, 140.00
Mississippi	1, 043, 660.30	686, 692.30	356, 968.00	1, 620	-----	647, 989.37	35, 462.93	-----	82, 500.00	268, 948.00	5, 520.00
North Carolina	1, 233, 233.96	820, 334.56	403, 899.40	1, 620	1, 620	785, 871.48	41, 843.08	-----	111, 620.00	285, 969.40	6, 310.00
Oklahoma	889, 574.72	554, 774.72	334, 800.00	-----	1, 552.50	518, 653.32	34, 568.90	-----	226, 200.00	107, 000.00	1, 600.00
South Carolina	703, 398.02	500, 064.02	203, 334.00	1, 620	1, 620.00	464, 167.65	32, 656.37	-----	166, 000.00	37, 334.00	-----
Tennessee	922, 683.87	636, 193.99	286, 489.88	1, 620	-----	598, 657.19	35, 916.80	-----	135, 000.00	151, 489.88	-----
Texas	2, 044, 180.28	1, 192, 057.41	852, 122.87	1, 620	-----	1, 138, 647.01	51, 790.40	-----	294, 905.92	552, 016.95	5, 200.00
Virginia	930, 694.69	535, 358.69	395, 336.00	1, 620	1, 620.00	1, 496, 976.47	35, 142.22	-----	221, 070.00	154, 781.00	19, 485.00
Total	12, 967, 666.63	8, 261, 178.81	4, 706, 487.82	17, 820	12, 892.50	7, 749, 685.66	472, 318.65	8, 462	2, 300, 128.60	2, 356, 904.22	49, 455.00
Illinois	1, 112, 389.31	583, 455.90	528, 933.41	1, 620	1, 620.00	541, 755.12	38, 460.78	-----	156, 880.00	4, 000.00	368, 053.41
Indiana	968, 534.27	467, 592.67	500, 941.60	1, 620	-----	432, 622.95	33, 349.72	-----	230, 798.60	205, 823.00	64, 320.00
Iowa	1, 213, 834.81	532, 774.33	681, 060.48	1, 620	1, 620.00	495, 730.84	33, 803.49	-----	227, 004.00	271, 056.48	183, 000.00
Kansas	923, 166.67	403, 995.92	519, 170.75	1, 020	-----	372, 323.20	30, 652.72	-----	103, 400.00	321, 915.75	93, 855.00
Michigan	828, 067.99	466, 531.99	361, 536.00	1, 620	1, 620.00	429, 038.73	34, 253.26	-----	213, 230.00	148, 306.00	-----

TABLE 5.—Sources of funds allotted for cooperative extension work, fiscal year ended June 30, 1941—Continued

State	Grand total	Total Federal funds	Total within the States	Funds from Federal sources				Funds from within the States			
				U. S. Dept. of Agriculture		Smith-Lever and Bank-head-Jones	Capper-Ketcham	Further development	State and college	County	Farmers' organizations, etc.
				Clarke-McNary	Norris-Doxey						
Minnesota	\$807, 298. 82	\$487, 217. 82	\$320, 081. 00	\$1, 620	\$1, 620. 00	\$451, 889. 16	\$32, 088. 66	-----	\$138, 581. 00	\$168, 000. 00	\$13, 500. 00
Missouri	922, 275. 00	605, 751. 47	316, 523. 53	1, 620	1, 620. 00	566, 129. 84	36, 381. 63	-----	141, 448. 53	175, 075. 00	-----
Nebraska	621, 489. 63	345, 378. 63	276, 111. 00	1, 620	-----	308, 824. 52	28, 253. 11	\$6, 681	107, 000. 00	142, 265. 00	26, 846. 00
North Dakota	383, 850. 02	249, 209. 65	134, 640. 37	1, 260	-----	216, 281. 72	25, 251. 93	6, 416	23, 622. 37	110, 388. 00	630. 00
Ohio	1, 043, 505. 91	599, 205. 91	444, 300. 00	1, 620	-----	557, 788. 89	39, 797. 02	-----	217, 070. 00	227, 230. 00	-----
South Dakota	367, 153. 89	261, 529. 04	105, 624. 85	-----	1, 620. 00	213, 302. 91	25, 200. 13	21, 406	47, 880. 45	57, 744. 40	-----
Wisconsin	777, 785. 39	488, 805. 21	288, 980. 18	1, 620	1, 620. 00	452, 747. 11	32, 818. 10	-----	61, 533. 89	226, 946. 29	500. 00
Total	9, 969, 351. 71	5, 491, 448. 54	4, 477, 903. 17	16, 860	11, 340. 00	5, 038, 434. 99	390, 310. 55	34, 503	1, 668, 448. 84	2, 058, 749. 92	750, 704. 41
Arizona	185, 752. 24	117, 005. 21	68, 747. 03	-----	-----	87, 409. 22	22, 643. 99	6, 952	25, 802. 98	32, 157. 38	10, 786. 67
California	996, 340. 00	404, 607. 96	591, 732. 04	1, 620	-----	368, 953. 05	34, 034. 91	-----	364, 832. 04	226, 900. 00	-----
Colorado	373, 950. 52	214, 578. 52	159, 372. 00	1, 620	1, 620. 00	171, 134. 37	24, 774. 15	15, 430	86, 024. 00	73, 348. 00	-----
Idaho	277, 229. 79	156, 837. 74	120, 392. 05	1, 620	990. 00	121, 857. 92	22, 919. 82	9, 450	52, 392. 25	67, 999. 80	-----
Montana	355, 815. 54	174, 597. 64	181, 217. 90	800	-----	130, 827. 99	23, 299. 65	19, 670	45, 000. 00	136, 217. 90	-----
Nevada	137, 633. 66	74, 178. 64	63, 455. 02	-----	1, 000. 00	40, 230. 93	20, 523. 71	12, 424	33, 205. 02	30, 250. 00	-----
New Mexico	255, 833. 31	142, 485. 31	113, 348. 00	-----	-----	111, 226. 45	22, 928. 86	8, 330	65, 133. 00	48, 215. 00	-----
Oregon	526, 175. 90	186, 958. 47	339, 217. 43	-----	-----	145, 882. 31	24, 294. 16	16, 782	202, 812. 08	122, 755. 35	13, 650. 00
Utah	204, 975. 04	122, 117. 04	82, 858. 00	1, 080	-----	90, 066. 47	22, 235. 57	8, 735	45, 000. 00	37, 858. 00	-----
Washington	410, 985. 56	220, 243. 49	190, 742. 07	1, 620	-----	191, 436. 44	26, 282. 05	905	48, 711. 30	142, 030. 77	-----
Wyoming	214, 400. 00	109, 875. 74	104, 524. 26	1, 260	-----	68, 182. 06	21, 438. 68	18, 995	61, 116. 26	43, 408. 00	-----
Total	3, 939, 091. 56	1, 923, 485. 76	2, 015, 605. 80	9, 620	3, 610. 00	1, 527, 207. 21	265, 375. 55	117, 673	1, 030, 028. 93	961, 140. 20	24, 436. 67
Alaska	32, 418. 00	23, 918. 00	8, 500. 00	-----	-----	13, 918. 00	10, 000. 00	-----	8, 500. 00	-----	-----
Hawaii	165, 062. 30	127, 891. 42	37, 170. 88	-----	1, 620. 00	104, 316. 21	21, 955. 21	-----	37, 170. 88	-----	-----
Puerto Rico	334, 670. 00	186, 689. 00	147, 981. 00	1, 620	-----	185, 069. 00	-----	-----	147, 981. 00	-----	-----
Grand total	33, 194, 379. 92	18, 590, 925. 17	14, 603, 454. 75	58, 520	34, 322. 50	16, 805, 082. 67	1, 490, 000. 00	203, 000	6, 707, 117. 80	6, 806, 873. 35	1, 089, 463. 60

○

D 3 2 8 6